

# **The Harman Kardon**

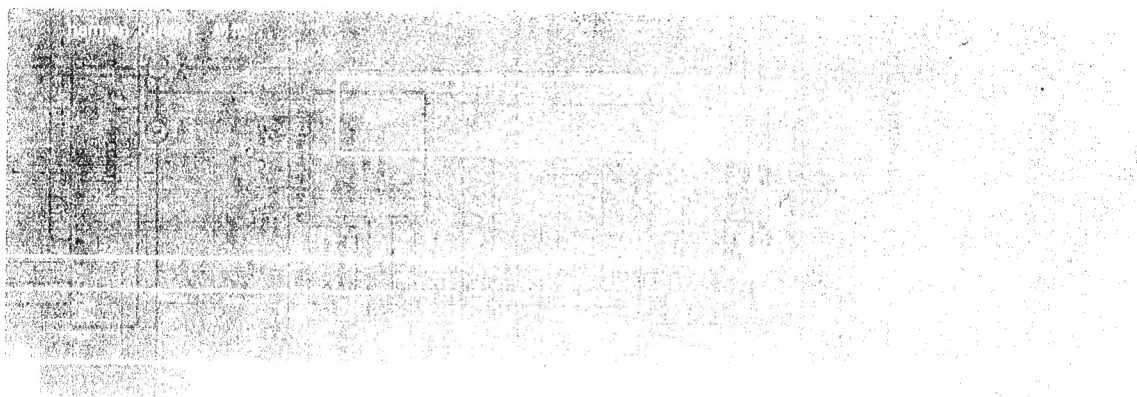
## **Model AVI200**

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### **AUDIO AND VIDEO AMPLIFIER**

Manual 188A

# Technical Manual



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**harman/kardon**

Parts and Service Office  
240 Crossways Park West, Woodbury, N.Y. 11797  
1112-0330A152 G9212 1500 Printed in Korea

## SPECIFICATIONS

	Nominal	Limit
● FRONT AMP SECTION		
RMS Output Power		
THD ( 0.09 %, 8 ohms)	≥ 68 W	≥ 65 W
Both Channel Driven (20 Hz-20 kHz)		
THD (20Hz-20KHz) at 65 W, 8 ohms		
20 Hz	≤ 0.09 %	≤ 0.2 %
1 kHz	≤ 0.09 %	≤ 0.2 %
20 kHz	≤ 0.09 %	≤ 0.2 %
IM Distortion at 65 W, 8 ohms, 60:700 Hz=4:1	≤ 0.1 %	≤ 0.2 %
Input Sensitivity at 65 W, 8 ohms		
Phono (MM)	2.5 mV	2.5±0.3 mV
CD, AUX, VCR	150 mV	150±30 mV
S/N Ratio Input Shorted at Volume Max (WTD IHF-A) at 65 W, 8 ohms		
Phono	≥ 72 dB	≥ 68 dB
CD, AUX	≥ 91 dB	≥ 88 dB
TV, VCR1, 2	≥ 91 dB	≥ 88 dB
Phono Overload at 1 kHz, THD: 0.5 % Phono		
Input → Tape Monitor Output	≥ 140 mV	≥ 130 mV
Phono Equalization		
RIAA 30 Hz-15 kHz, Tape Monitor, Output	RIAA	RIAA±1.0 dB
Tone Control		
Bass, 100 Hz	± 10 dB	± 10±2 dB
Treble, 10 kHz	± 10 dB	± 10±2 dB
Loudness contour at -40 dB		
100 Hz	+6 dB	6±2 dB
10 kHz	+3 dB	3±2 dB
Frequency Response at 1W, 8 ohms		
CD/AUX		
20 Hz, 20 kHz	±0.5 dB	± 1 dB
Channel Crosstalk Input Shorted at 65 W, 8 ohms		
1 kHz	≥ 55 dB	≥ 50 dB
10 kHz	≥ 45 dB	≥ 40 dB

	Nominal	Limit
● CENTER AMP SECTION		
RMS Output Power.		
THD = 0.09 %, 8 ohms, 1 kHz	≥ 67 W	≥ 60 W
Only Center Channel Driven		
S/N Ratio		
Input Shorted, IHF-A WTD	≥ 78 dB	≥ 73 dB
Frequency Response at -3 dB		
Normal	100-20 kHz	150-15 kHz
Wide	20-20 kHz	50-15 kHz
● REAR AMP SECTION		
RMS Output Power.		
THD = 1 %, 8 ohms, 80 Hz-7 kHz	≥ 27 W x 2	≥ 25 W x 2
Both Rear Channel Driven		
S/N Ratio		
Input Shorted, (IHF-A WTD)		
Dolby	≥ 65 dB	≥ 63 dB
Stadium	≥ 65 dB	≥ 63 dB
Theater	≥ 65 dB	≥ 63 dB
Frequency Response at -3 dB		
8 ohms, Dolby Pro-Logic	80-7 kHz	100-6 kHz
● VIDEO SECTION		
Input Sensitivity/Impedance.		
VCR1, VCR2, VDP	1 Vp-p/75 Ω dB	1 Vp-p/75Ω±0.5 dB
Output Level/Impedance		
VCR1, REC out, TV Monitor Out	1 Vp-p/75 Ω dB	1 Vp-p/75Ω±0.5 dB
Frequency Response at -3 dB		
DC -10 MHz		5-6 MHz
Crosstalk at 1.0 MHz	≥ 50 dB	≥ 45 dB

**Note :** Nominal specs represent the design specs. All units should be able to approximate these-some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable ; in no case should a unit fail to meet limit specs. This manual is based on the American Standard wiring diagram, and information on regional component variations through use of parts list. Design and specifications subject to change without notice for improvement.

## LEAKAGE TEST

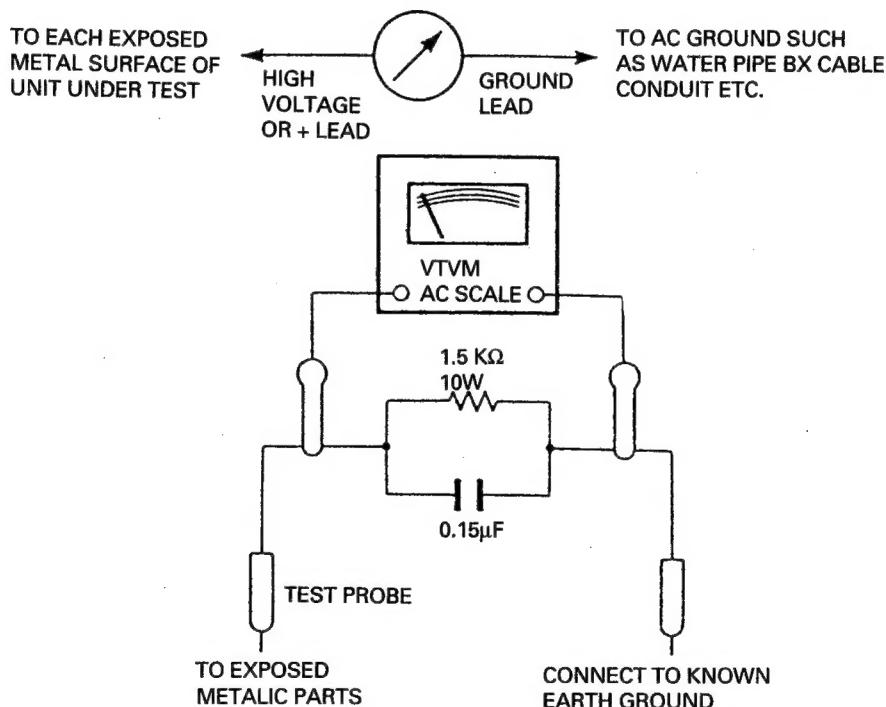
Before returning the unit to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metallic parts in the unit.
2. Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. Which were removed for servicing are properly reinstalled.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item no. 21641, RCA model WT540A or use alternate method as follows: plug the power cord directly into a 120-volt AC receptacle (do not use an Isolation transformer for this test).

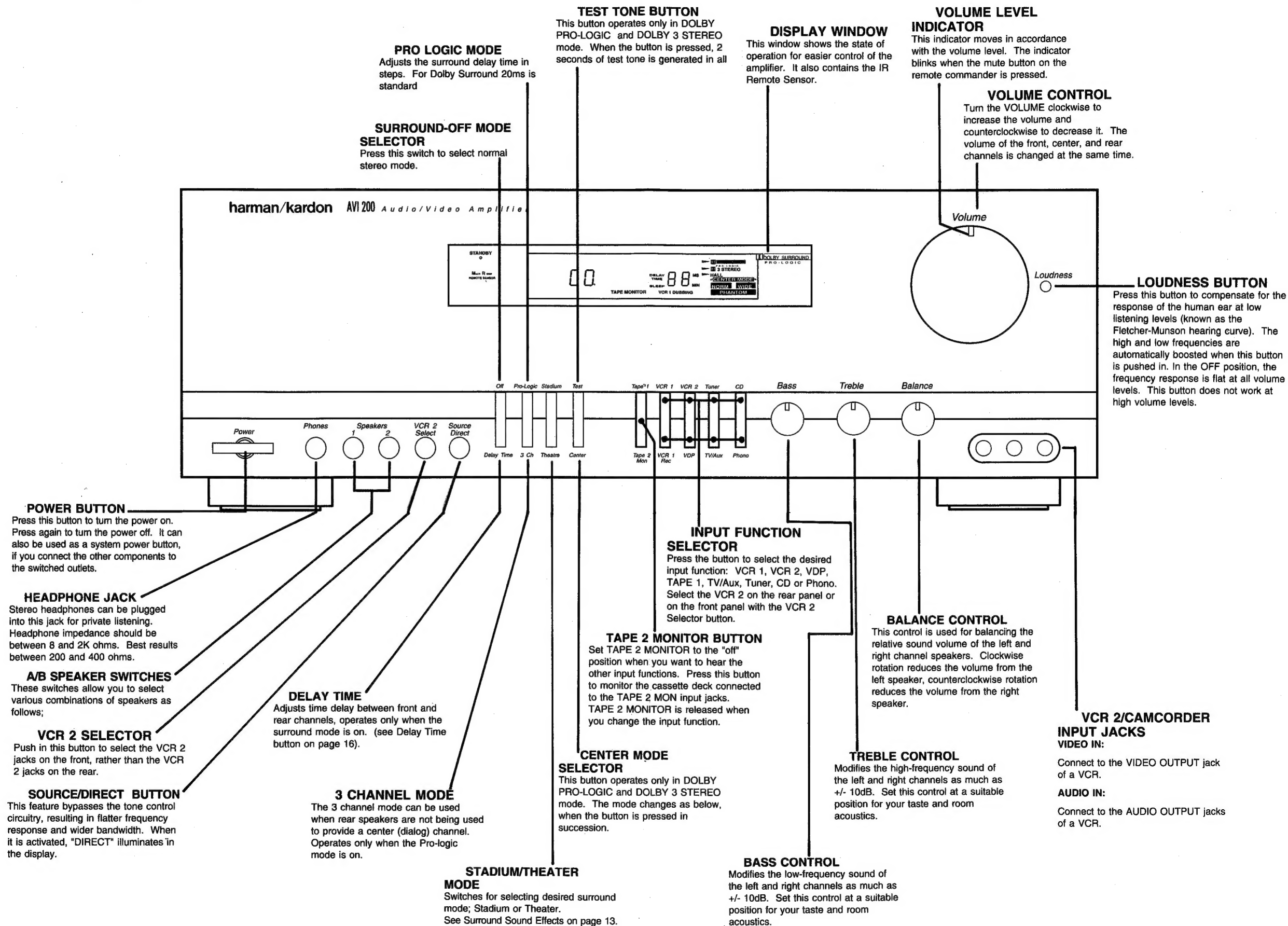
Using two clip leads, connects a 1500 ohm, 10-watt resistor paralleled by a  $0.15\mu\text{F}$  capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (see diagram) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the on and off positions.)

A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

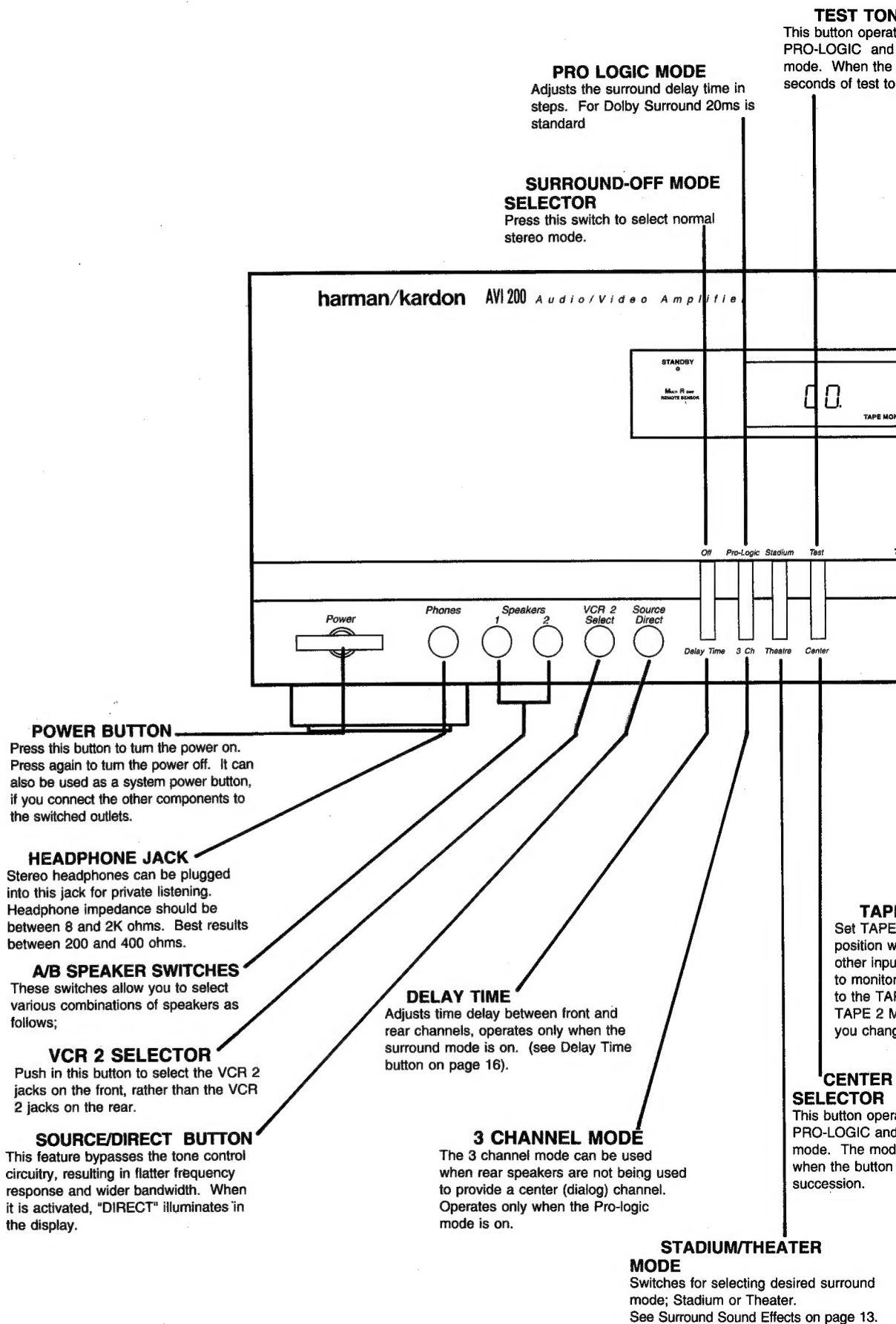
### SIMPON MODEL 229 ETC. FOR LEAKAGE TEST



# CONTROLS AND FUNCTIONS



## CONTROLS AND FUNCTIONS



### TEST TONE BUTTON

This button operates only in DOLBY PRO-LOGIC and DOLBY 3 STEREO mode. When the button is pressed, 2 seconds of test tone is generated in all

### DISPLAY WINDOW

This window shows the state of operation for easier control of the amplifier. It also contains the IR Remote Sensor.

### VOLUME LEVEL INDICATOR

This indicator moves in accordance with the volume level. The indicator blinks when the mute button on the remote commander is pressed.

### VOLUME CONTROL

Turn the VOLUME clockwise to increase the volume and counterclockwise to decrease it. The volume of the front, center, and rear channels is changed at the same time.

### LOUDNESS BUTTON

Press this button to compensate for the response of the human ear at low listening levels (known as the Fletcher-Munson hearing curve). The high and low frequencies are automatically boosted when this button is pushed in. In the OFF position, the frequency response is flat at all volume levels. This button does not work at high volume levels.

### INPUT FUNCTION SELECTOR

Press the button to select the desired input function: VCR 1, VCR 2, VDP, TAPE 1, TV/Aux, Tuner, CD or Phono. Select the VCR 2 on the rear panel or on the front panel with the VCR 2 Selector button.

### TAPE 2 MONITOR BUTTON

Set TAPE 2 MONITOR to the "off" position when you want to hear the other input functions. Press this button to monitor the cassette deck connected to the TAPE 2 MON input jacks. TAPE 2 MONITOR is released when you change the input function.

### CENTER MODE SELECTOR

This button operates only in DOLBY PRO-LOGIC and DOLBY 3 STEREO mode. The mode changes as below, when the button is pressed in succession.

### BALANCE CONTROL

This control is used for balancing the relative sound volume of the left and right channel speakers. Clockwise rotation reduces the volume from the left speaker, counterclockwise rotation reduces the volume from the right speaker.

### TREBLE CONTROL

Modifies the high-frequency sound of the left and right channels as much as  $\pm 10$ dB. Set this control at a suitable position for your taste and room acoustics.

### BASS CONTROL

Modifies the low-frequency sound of the left and right channels as much as  $\pm 10$ dB. Set this control at a suitable position for your taste and room acoustics.

### VCR 2/CAMCORDER INPUT JACKS

**VIDEO IN:**  
Connect to the VIDEO OUTPUT jack of a VCR.

**AUDIO IN:**  
Connect to the AUDIO OUTPUT jacks of a VCR.

TER

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r.  
cts on page 13.

## DISASSEMBLY PROCEDURES

### MODEL NO. : AVI-200

NOTE : The item numbers given in the following procedures refer to the exploded view and parts list.

#### 1 Cover top removal

1. Remove 6 screws (S2) from the sides of chassis.
2. Remove 2 screws (S1) from the chassis back (item #56).
3. Carefully lift the cover top to remove.

#### 2 Cover bottom removal

1. Remove 9 screws (S1) from the chassis.
2. Carefully lift the cover bottom (item #56) to remove.

#### 3 Panel Front Assembly removal

1. Remove the cover top.
2. Remove 4 screws (S1) from bottom of the chassis front (item #34).
3. Remove 4 screws (S5) from both side of the chassis front (item # 34).
4. Remove the flat cable from wafer (CP502) on the volume PC Board.
5. Remove the flat cable from wafer (CP802) on the Dolby PC Board.
6. Disconnect CP401 and CP581 from the Dolby PC Board.
7. Remove the flat cable from wafer (CNT803) on the tuner PC Board.
8. Disconnect CP291 from the tuner PC Board.
9. Disconnect CP402 from the main PC Board.
10. Disconnect CP801 from the power supply PC Board.

#### 4 Volume PC Board removal

1. Remove the panel front assembly.
2. Pull out the main volume knob with LED PC Board.
3. Remove the hex nut from the volume-motor to remove the volume PC Board.
4. Remove 2 screws (S1 and S3) from the panel front (item #2).
5. Pull the volume PC Board from the panel front assembly to remove.

#### 5 Headphone PC Board Removal

1. Remove the panel front assembly.
2. Remove 2 screws (S1) from the panel front (item #2) to release the headphone PC Board.

#### 6 Tone PC Board Removal

1. Remove the panel front assembly.
2. Pull the knobs (bass, treble, balance) out from the panel front assembly.
3. Remove the hex nut from the variable resistors (item #18 and #19).
4. Remove 4 screws (S1).

#### 7 Front PC Board Removal

1. Remove the panel front assembly.
2. Remove 11 screws (S1) holding the front PC Board to the panel front (item #2).

#### 8 Tuner PC Board Removal

1. Remove the cover top.
2. Remove the panel front assembly.
3. Disconnect CP103, CP601, CP101, CP104, CP704 and CP106 on the tuner PC Board.
4. Disconnect CP901 and CP902 on the tuner PC Board.
5. Remove 2 screws (S5) from the tuner PC Board.
6. Remove 8 screws (S9) from the chassis back (item #53)

#### 9 Dolby PC Board Removal

1. Remove the cover top.
2. Remove the panel front assembly.
3. Unjoin 2 fastener (item #35) for remove the Dolby PC Board.
4. Remove the flat cable CN501 on the Dolby PC Board.
5. Disconnect CP601 from the Dolby PC Board.

#### 10 Surround PC Board Removal

1. Remove the cover top.
2. Remove the cover bottom.
3. Remove the panel front assembly.
4. Remove the Dolby PC Board.
5. Disconnect CP602 from the power supply PC Board.
6. Remove 1 screw (S5) from the bottom of Chassis front (item #34).
7. Remove 6 screws (S1) from the chassis front (item #34)
8. Remove the chassis front.
9. Remove 2 screws (S7) from the heatsink (item #36).

**[11] Chassis back Removal**

1. Remove the cover top.
2. Remove the cover bottom
3. Do steps [8], [9] and [10].
4. Unsolder the solder pins to remove the power cord (item #56).
5. Remove 1 screw (S1) from the bottom of chassis left (item #41) and Remove 4 screws (S1) from the chassis back.
6. Remove 19 screws (S9) and 2 screws (S10: PHONO and MONITORS) holding the chassis back.

**[12] Main PC Board Removal**

1. Remove the cover top.
2. Remove the cover bottom.
3. Remove the panel front assembly.
4. Remove the chassis back.
5. Unsolder all leads of Q262L/R, Q263L/R, Q270L/R, Q262C, Q263C, Q270C and IC241 from copper track on the main PC Board.
6. Disconnect CP101 from the power supply PC Board.
7. Disconnect CP241 from the power transformer.
8. Remove 2 screws (S5) from the main PC

Board.

**[13] Power Supply PC Board Removal**

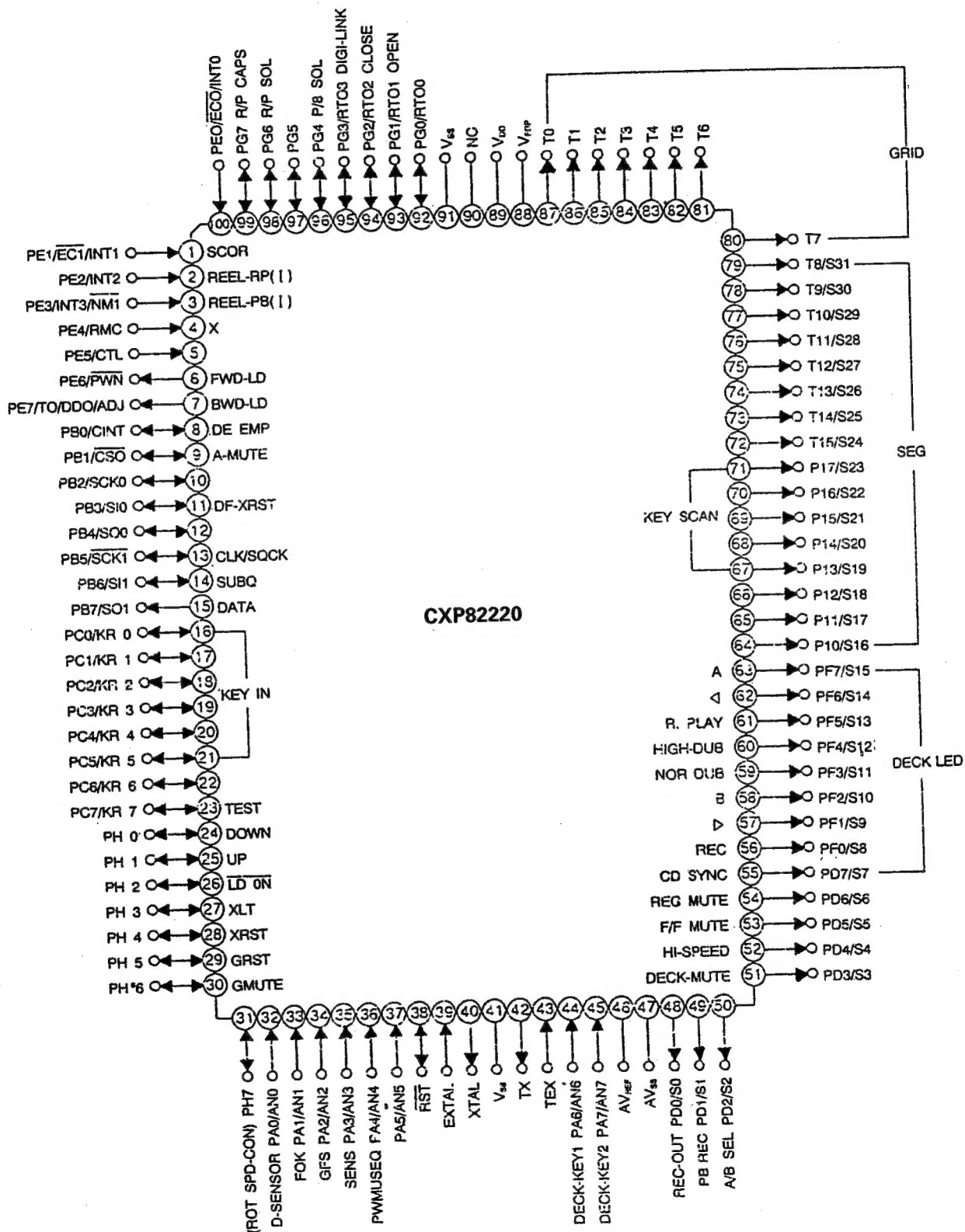
1. Remove the cover top.
2. Disconnect CP801 from front P.C. Board
3. Disconnect CP602 from the surround P.C. Board.
4. Disconnect CP101 from the power supply P.C. Board.
5. Disconnect CN704 from the tuner P.C. Board.
6. Disconnect CP701, CP702 and CP703 from the transformer.
7. Unsolder 2 leads of the AC-cord (item #56) from neutral and live on the power supply PC Board.
8. Remove 2 screws (S5) from the power supply PC Board.
9. Remove 2 screws (S9) from the chassis back.



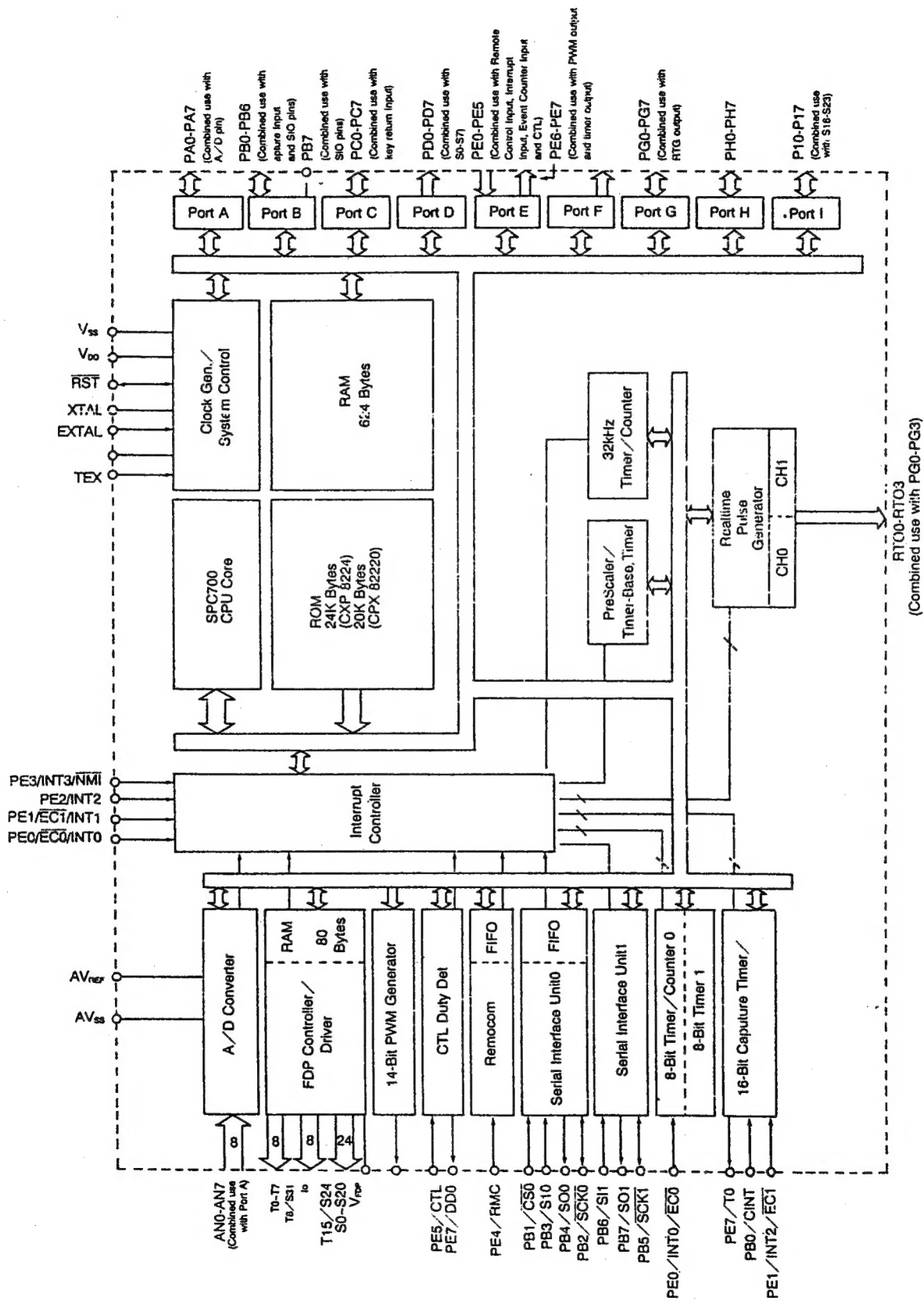
## CIRCUIT DESCRIPTION

## CPU (IC801) : CXP82220 -107Q (8 bit SINGLE-CHIP MICROCOMPUTER)

## 1. Pin Connection Diagram



## 2. Block Diagram



## 3. Pin Functions

Symbol	Input/Output		Functions
PA0/AN0 to PA7/AN7	I/O/Analog Input	(Port A) 8-bit I/O port. Each bit can be individually specified as input or output. (8 pins)	A/D converter analog input pins.
PB0/CINT	I/O/Input	(Port B) 8-bit I/O port. The low 7 bits can be individually specified as input or output. The most significant bit (PB7) is output only. (8 pins)	16-bit timer/counter external capture input pin
PB1/ $\overline{\text{CSO}}$	I/O/Input		Serial interface(CH0) chip select input pin.
PB2/ $\overline{\text{SCKO}}$	I/O/I/O		Serial data (CH0) I/O pin.
PB3/S10	I/O/Input		Serial data (CH0) input pin.
PB4/SO0	I/O/Output		Serial data (CH0) output pin.
PB5/ $\overline{\text{SCK1}}$	I/O/I/O		Serial clock (CH1) I/O pin.
PB6/S11	I/O/Input		Serial data (CH1) input pin.
PB7/SO1	Output/Output		Serial data (CH1) output pin.
PC0/KR0 ~ PC7/KR7	I/O/Input	(port C) 8-bit I/O port. Each bit can be individually specified as input or output. Each can drive a 12 mA sink current. (8 pins)	Key return input pins for performing key scans with the FDP segment signals.
PD0/S0 ~ PD7/S7	Output/Output	(Port D) 8-bit output port. (8 pins)	FDP segment signal output pins.
PE0/INT0/ $\overline{\text{EC0}}$	Input/Input/Input	(Port E) 8-bit input/output port. The low 6 bits are inputs, and the high 2 bits are outputs. (8 pins)	External interrupt request input pins.
PE0/INT0/ $\overline{\text{EC1}}$	Input/Input/Input		Timer/counter external event input pins. (2 pins)
PE2/INT2	Input/Input		(4 pins)
PE3/INT3/ $\overline{\text{NMI}}$	Input/Input/Input		Non-maskable interrupt request input pin.
PE4/RMC	Input/Input		
PE5/CTL	Input/Input		Remote control unit receive circuit input pin.
PE6/ $\overline{\text{PWM}}$	Output/Output		14-bit PWM output pin.
PE7/TO/DD0/ADJ	Output/Output Output/Output		16-bit timer/counter square wave output pin. CTL duty detection output pin, and pin for frequency division output of 32 kHz oscillator
PF0/S8 ~ PF7/S15	Output/Output	(Port F) 8-bit output port. (8 pins)	FDP segment signal output pins.

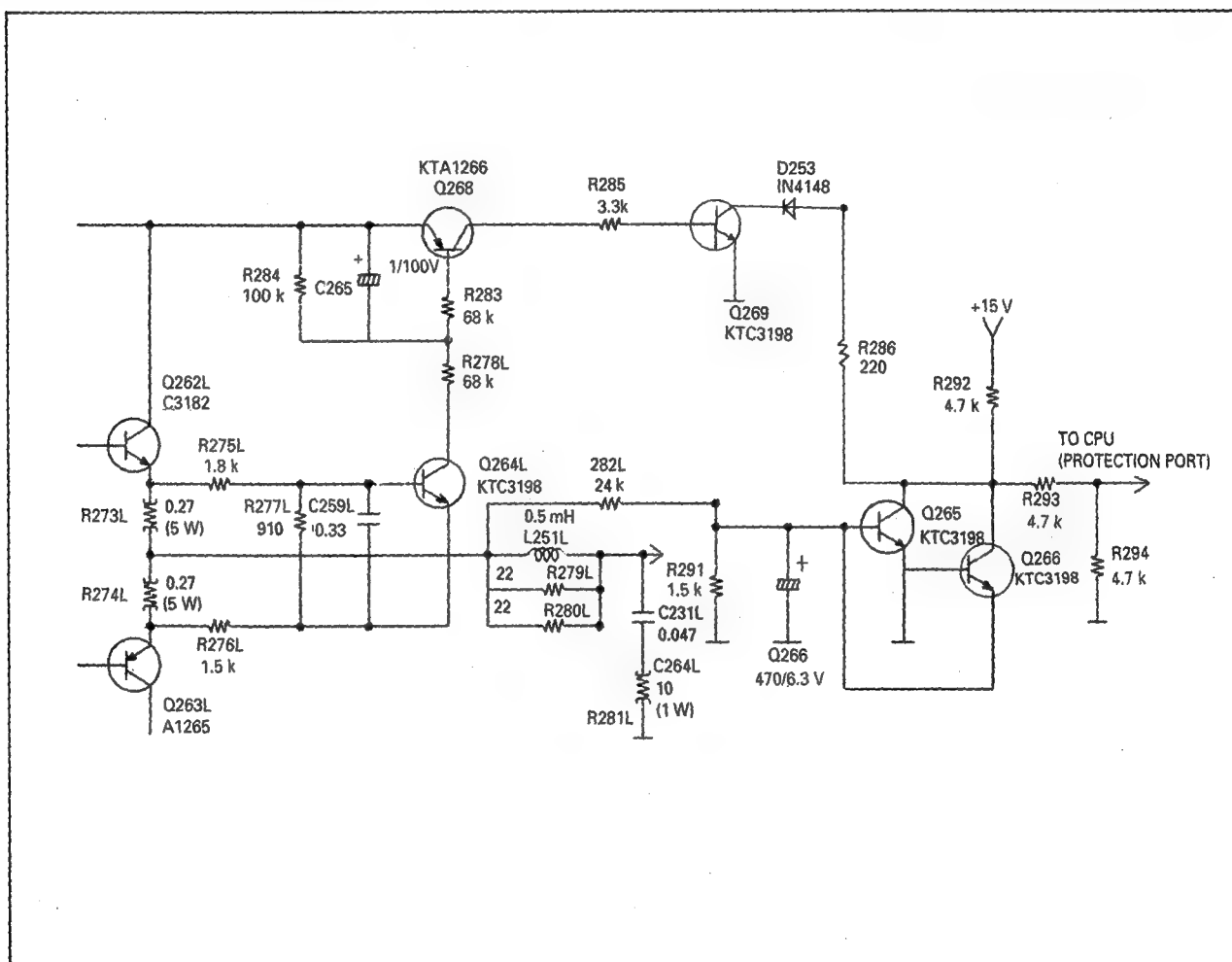
Symbol	Input/Output	Functions	
PG0/PT0 o ~ PG3/RT 03	I/O/Output	(Port G) 8-bit I/O port. Each bit can be individually specified as input or output. The lower four bits are output logically ORed with the RTO contents. (8 pins)	Realtime pulse generator (RTG) outputs. These function as high-precision realtime. pulse output ports. (4 pins)
PG4 ~ PG7	I/O		
PH0 ~ PH7	I/O	(Port H) 8-bit I/O port. Each bit can be individually specified as input or output. (8 pins)	
P10/S16 ~ P17/S23	Output/Output	(Port I) 8-bit output port. (8 pins)	FDP segment signal output pins.
T8/S31 ~ T15/S24	Output/Output	Dual-use output pins for FDP timing signals and FDP segment signals.	
T0 ~ T7	Output	FDP timing signal output pins	
V <sub>FDP</sub>		FDP voltage supply pin if an internal resistor was specified with a mask option.	
EXTAL	Input	Crystal interface pins for system clock oscillation. If the clock is supplied externally then it should be input to the EXTAL pin. The XTAL pin should then be left open	
XTAL	Output		
TEX	Input	Crystal interface pins for the 32 kHz timer/counter's oscillator. A 32-kHz liquid crystal oscillator is placed between TEX and TX. When used as an event input, connect the signal source to TEX, and leave TX open.	
TX			
RST	I/O	System reset pin, active when "L"	
NC		This pin should be connected to V <sub>DD</sub> during operation.	
AV <sub>REF</sub>	Input	A/D converter reference voltage input pin.	
AV <sub>SS</sub>		A/D converter ground pin.	
V <sub>DD</sub>		Positive power supply pin.	
V <sub>SS</sub>		GND pin.	

## PROTECTION CIRCUITS

### SPEAKER PROTECTION CIRCUITS

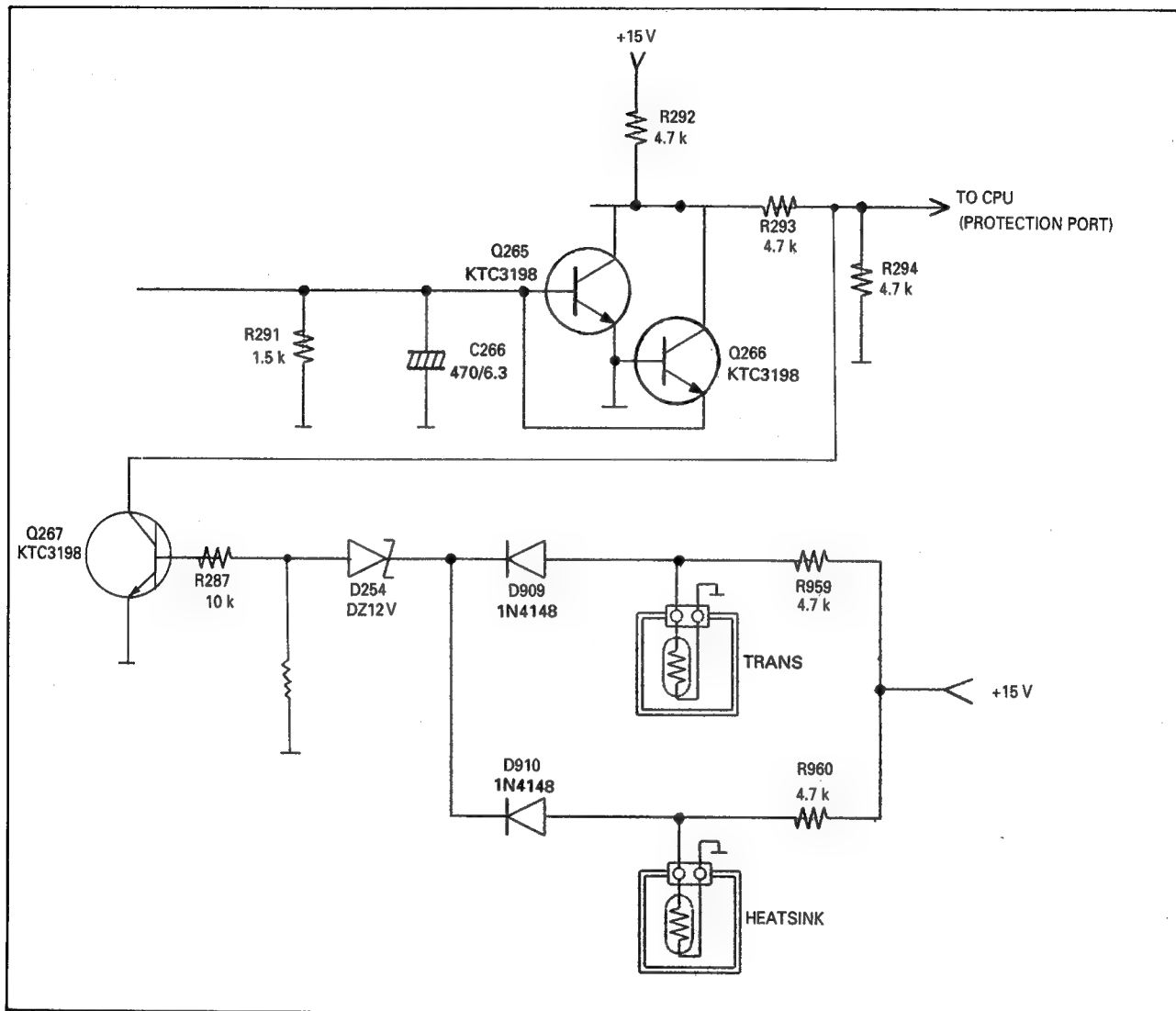
The CPU protects both this unit and the speakers when an abnormally high current flows in Q262 L/R/C and Q263 L/R/C due to excessive input drive, too low of a load impedance, or short of the speaker terminals. If current increase is excessive the voltage across R273 L/R/C or R274 L/R/C turns on Q264 L/R/C, then Q268 turns on Q269.

It makes the protection port of the CPU to low state, and the CPU turns unit to standby state.



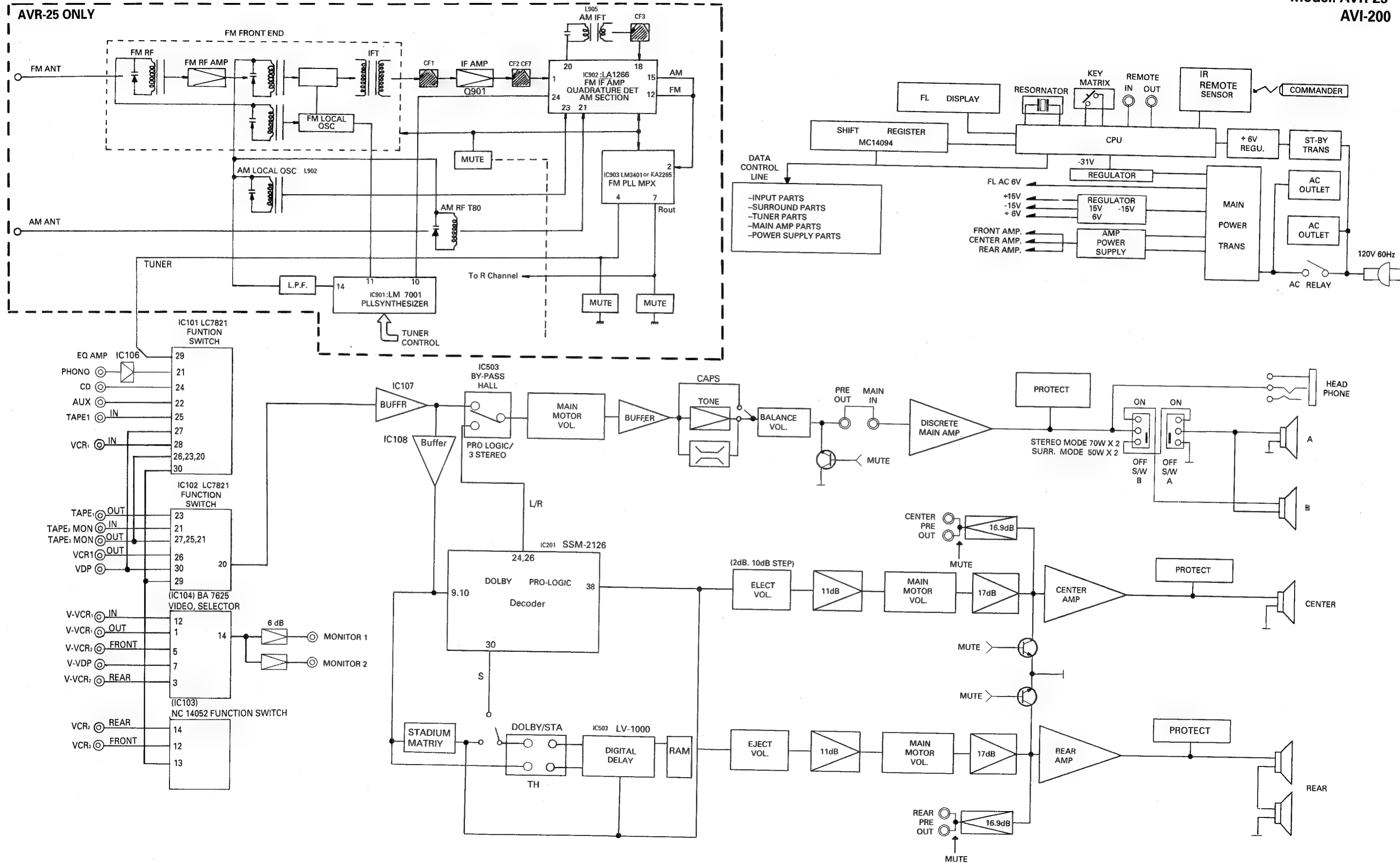
### THERMAL PROTECTION CIRCUITS

This unit has a overload thermal protection circuits to guard against abnormal operation. When the temperature of TRANS POSISTOR installed with the main transformer or H/SINK POSISTOR rises abnormally, the resistance of the posistor becomes larger and Q267 is turned on. It makes the protection port of the CPU to Low state, and the CPU turns unit to standby state.

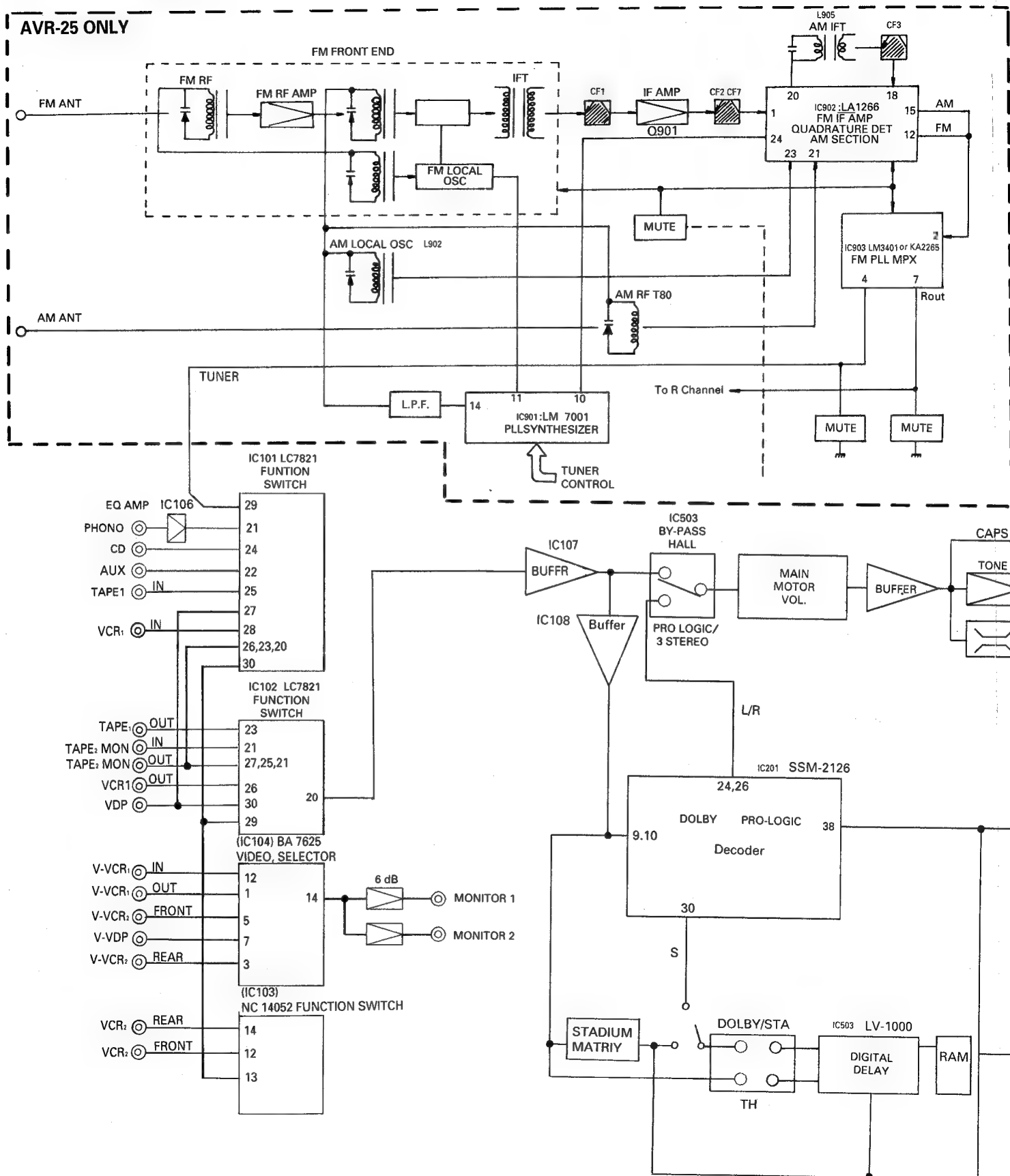


## BLOCK DIAGRAM

**Model: AVR-25  
AVI-200**

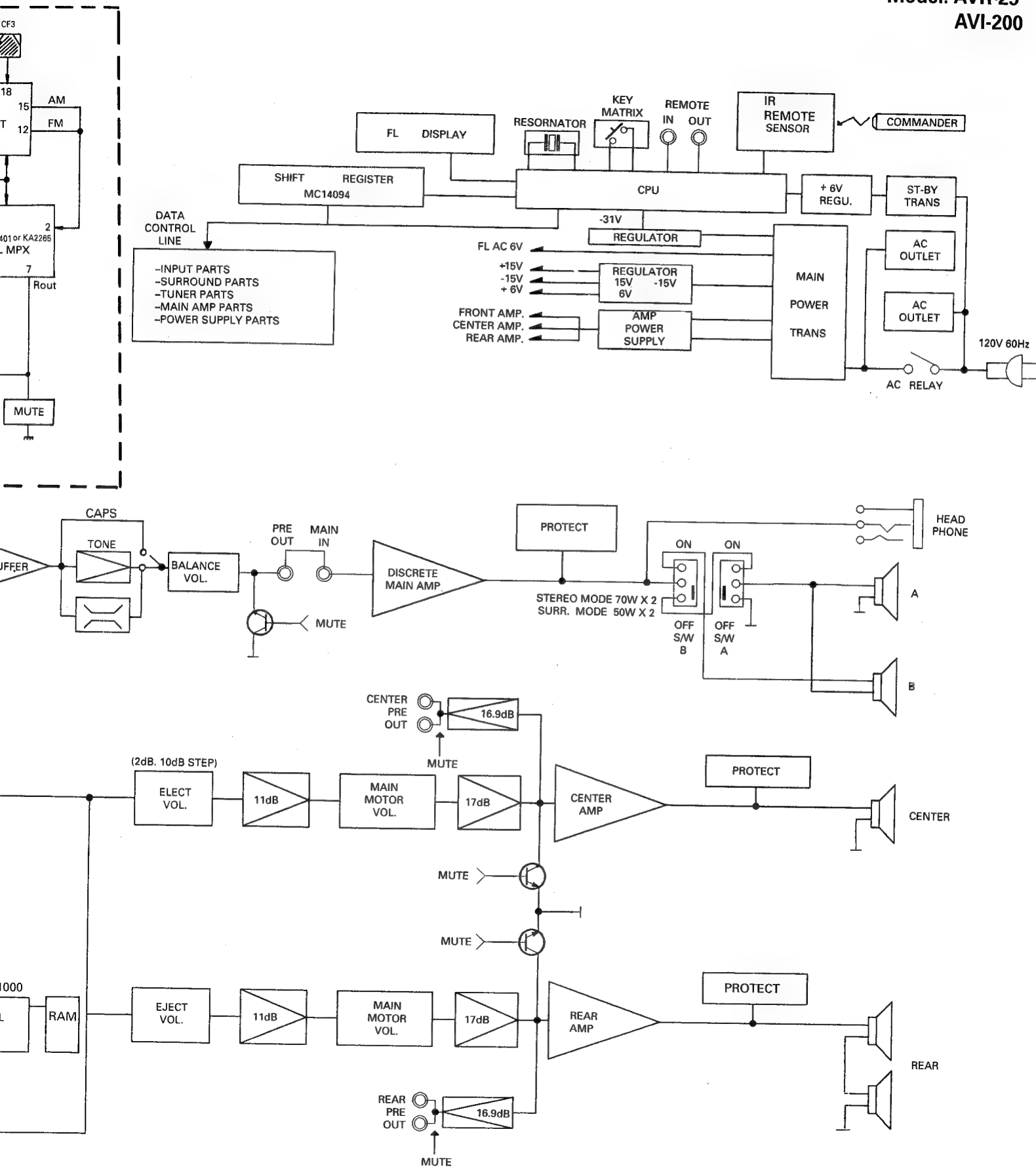


## BLOCK DIAGRAM

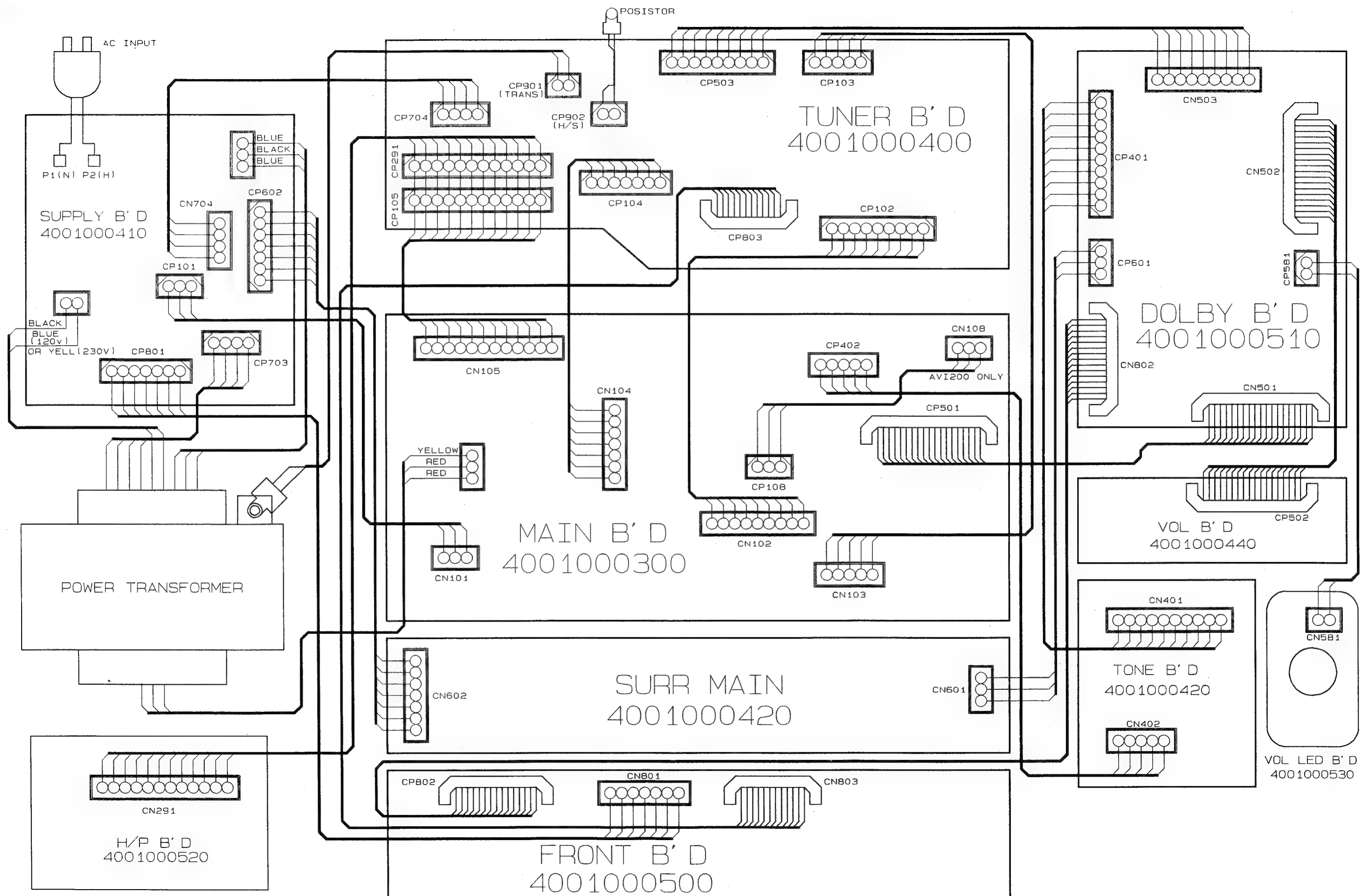




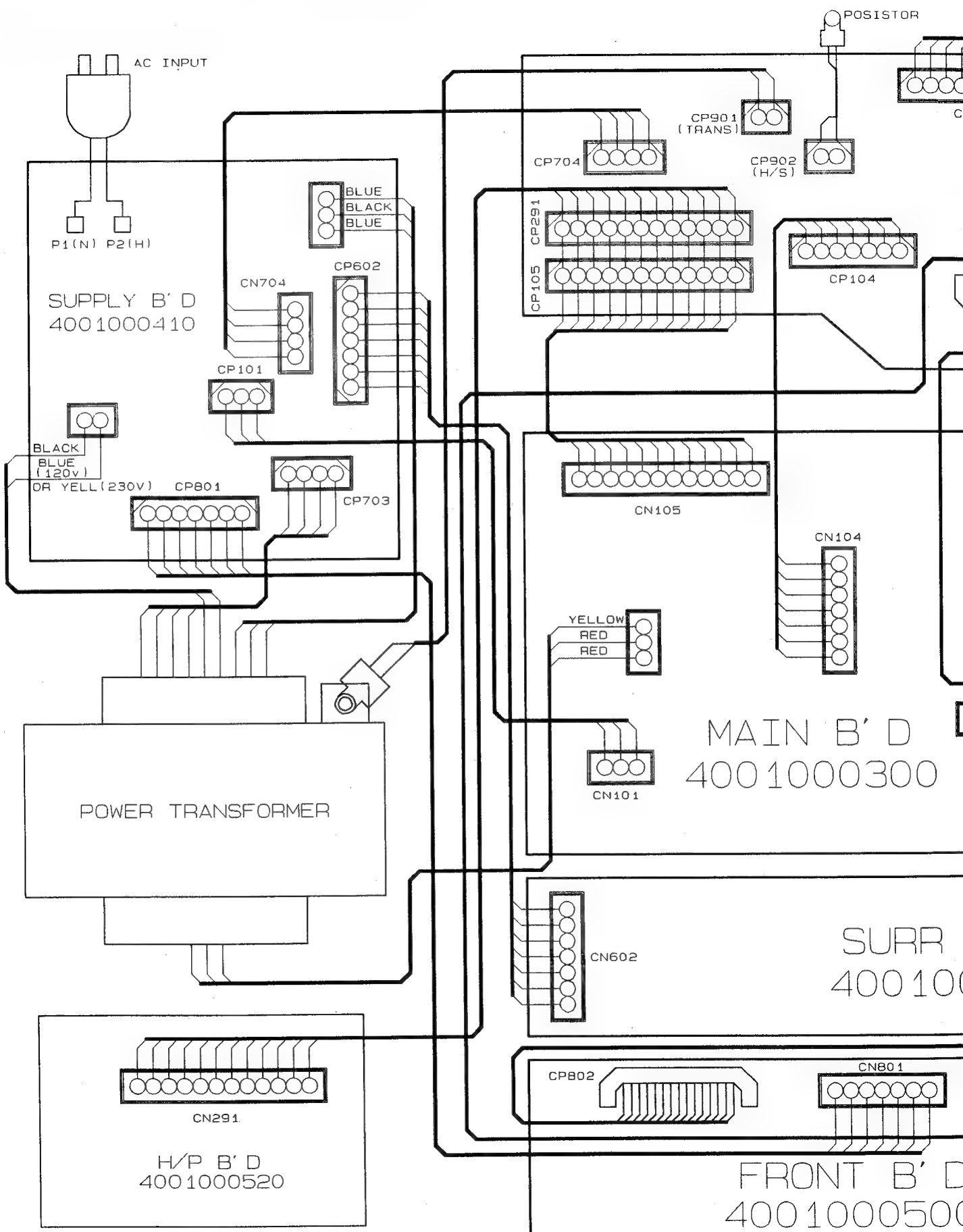
**Model: AVR-25  
AVI-200**



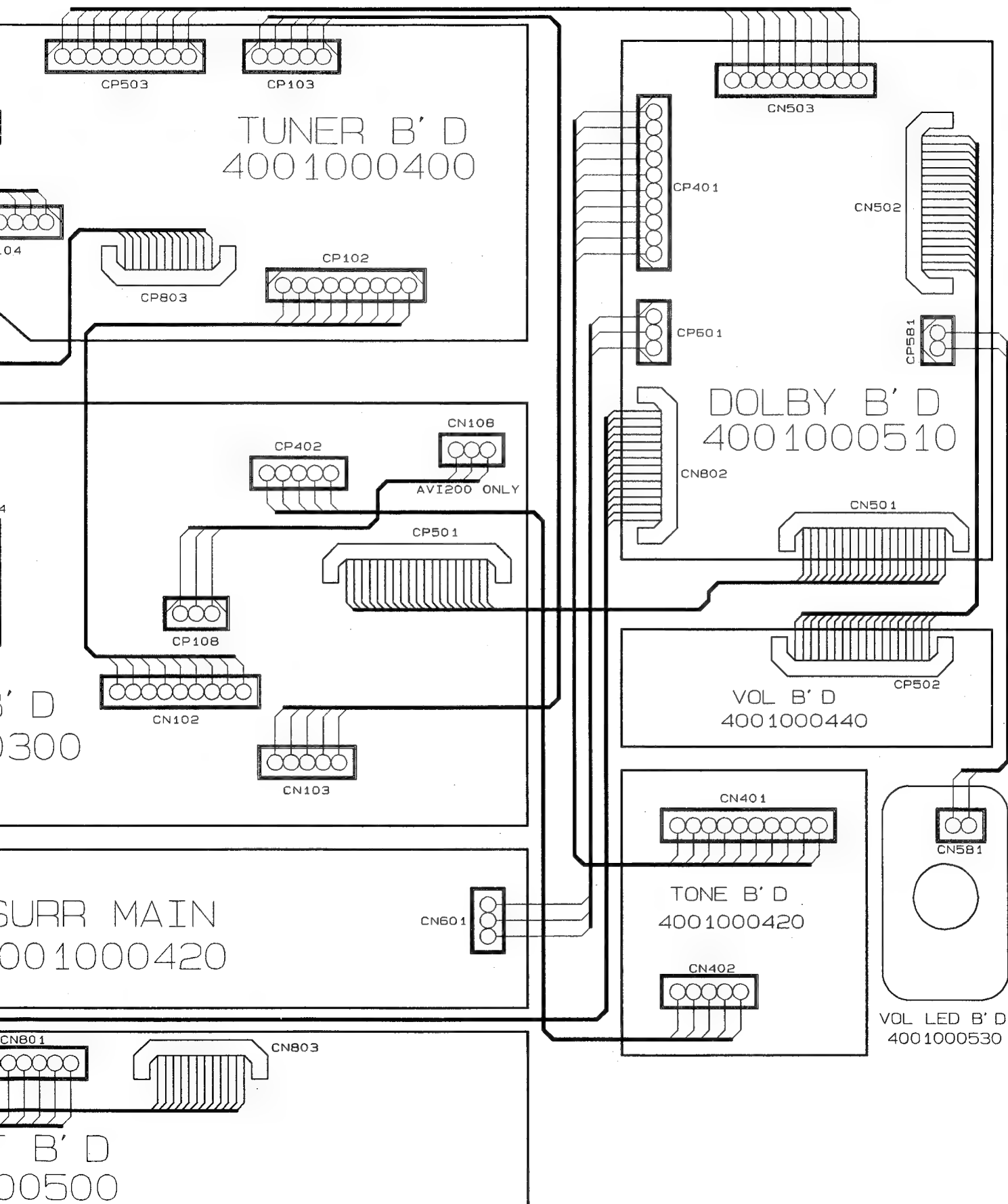
# WIRING DIAGRAM



# WIRING DIAGRAM



OSISTOR



## TROUBLESHOOTING

Symptom	Cause and Remedy
Unit inoperative (FL indicator does not light)	A) Faulty AC power cord. Replace. B) Defect the power switch. Replace. C) Broken wire in the power transformer. Replace the power transformer. D) Blown power Replace the fuse.
Fuse blows when power is turned on.	A) Defective power transformer. Replace. B) Short the primary or secondary of the transformer circuitry. Repair the short. C) Damaged rectifier (D241 to D244) or damaged trans (Q262 and Q263). Replace the defective component(s). D) Short circuit in the amplifier circuit. Repair the short.
Power indicator lights but no sound from both channels	A) Speaker switch 1 or 2 defective. Replace the defective switch (es). B) Defect in transistor Q262 L/R, Q263 L/R on the Main Amp Board. Replace the defective component(s).
Speaker A inoperative	A) Speaker switch A defective. Replace
Speaker B inoperative	A) Speaker switch B defective. Replace.
Speaker works normally but headphones inoperative	A) Defective resistor R295L/R Replace.
PHONO input inoperative	A) Poor contact in phono input jack. Repair or replace the jack. B) Defective phono switch or IC106. Replace.
LOUDNESS has no effect	A) Defective loudness switch. Replace. B) Defective resistor R301 L/R, C301 L/R and C302 L/R Replace the defective component(s).
Bass control has no effect	A) Variable resistor BASS defective. Replace. B) Defective R416L/R, R417L/R, R418L/R, C414L/R, C415L/R Replace the defective component(s).

Symptom	Cause and Remedy
Treble control has no effect	A) Variable resistor TREBLE defective. B) Defective C417L/R, C418L/R, R419L/R, R420L/R Replace the defective components(s).
FL inoperative	A) FL defective. Replace. B) Defective IC801. Replace C) Defective X-TAL 801. Replace.
Noise Volume control	A) Defective IC301. Replace. B) Defective capacitor C304 or C305 Replace the defective capacitor(s).
Remote Control Unit inoperative	A) Weak Battery. Replace. B) Defective. Replace. C) Defective IC801 or Sensor 801 (CPU Board) or IC01. Replace.

## TROUBLESHOOTING

Symptom	Cause and Remedy
Unit inoperative (FL indicator does not light)	A) Faulty AC power cord. Replace. B) Defect the power switch. Replace. C) Broken wire in the power transformer. Replace the power transformer. D) Blown power Replace the fuse.
Fuse blows when power is turned on.	A) Defective power transformer. Replace. B) Short the primary or secondary of the transformer circuitry. Repair the short. C) Damaged rectifier (D241 to D244) or damaged trans (Q262 and Q263). Replace the defective component(s). D) Short circuit in the amplifier circuit. Repair the short.
Power indicator lights but no sound from both channels	A) Speaker switch 1 or 2 defective. Replace the defective switch (es). B) Defect in transistor Q262 L/R, Q263 L/R on the Main Amp Board. Replace the defective component(s).
Speaker A inoperative	A) Speaker switch A defective. Replace
Speaker B inoperative	A) Speaker switch B defective. Replace.
Speaker works normally but headphones inoperative	A) Defective resistor R295L/R Replace.
PHONO input inoperative	A) Poor contact in phono input jack. Repair or replace the jack. B) Defective phono switch or IC106. Replace.
LOUDNESS has no effect	A) Defective loudness switch. Replace. B) Defective resistor R301 L/R, C301 L/R and C302 L/R Replace the defective component(s).
Bass control has no effect	A) Variable resistor BASS defective. Replace. B) Defective R416L/R, R417L/R, R418L/R, C414L/R, C415L/R Replace the defective component(s).

Symptom	Cause and Remedy
Treble control has no effect	A) Variable resistor TREBLE defective. B) Defective C417L/R, C418L/R, R419L/R, R420L/R Replace the defective components(s).
FL inoperative	A) FL defective. Replace. B) Defective IC801. Replace C) Defective X-TAL 801. Replace.
Noise Volume control	A) Defective IC301. Replace. B) Defective capacitor C304 or C305 Replace the defective capacitor(s).
Remote Control Unit inoperative	A) Weak Battery. Replace. B) Defective. Replace. C) Defective IC801 or Sensor 801 (CPU Board) or IC01. Replace.

## NOTES

## GENERAL UNIT PARTS LIST

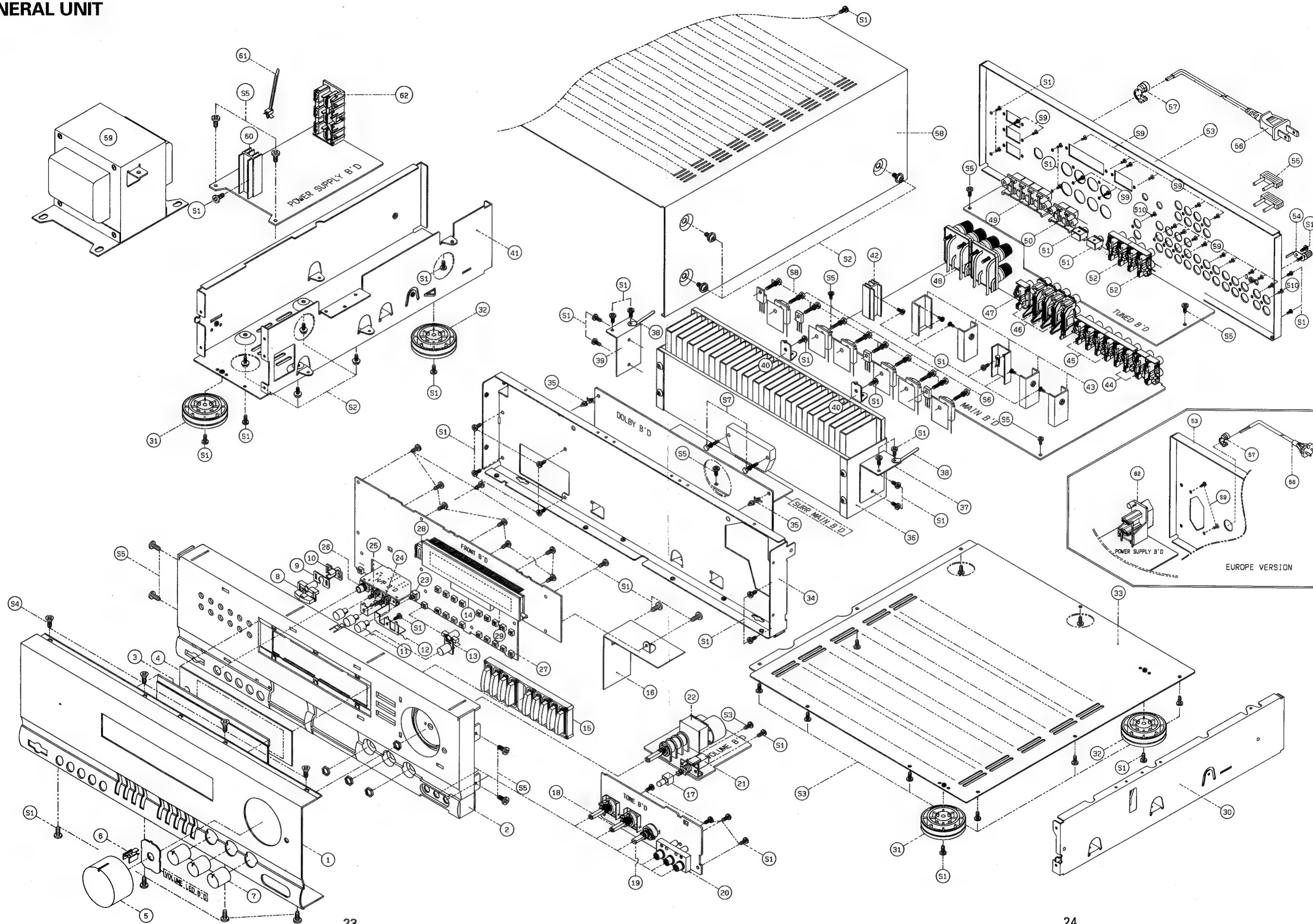
Ref. No.	Description	Mfr. Part No.	Version	Ref. No.	Description	Mfr. Part No.	Version
1	Panel Front, Aluminium, black	048602019321		49	Terminal Speaker, 4P	4408105410	
2	Body, Front, ABS, black	8521008910		50	Terminal Speaker, 2P	4408107010	
3	Window FL, Acryl, Dark Smoke	048553020111		51	Jack, Multiroom	4438006510	
4	Filter, FL, PVC, Red	048535042611		52	Jack, RCA, 4P	4438108610	
5	Knob, Volume, Aluminium, Black	048643006711		53	Chassis, Back, SECC	046202041241	Europe
6	Indicator, Volume, Acryl, Milk	8555049210			Chassis, Back, SECC	046102041321	USA/CA
7	Knob Rotary, ABS, Black	048545126311		54	Ground Terminal	4408103720	
8	Button Power, ABS, black	048543061011		55	Plug, Mono	4328204210	
9	Light Shield, PVC, Black	8535042910		56	Cord, AC Power	4308002310	Europe
10	Indicator, Power, Acryl, Milk	8555048710			Cord, AC Power	4308001410	USA/CA
11	Button Speaker, ABS, black	048545124111		57	Stopper, Cord	6518000111	Europe
12	Bracket Shield, ET	6165148210			Stopper, Cord	6518000710	USA/CA
13	Button Source, ABS, black	048543060911		58	Cover Top, SECC, Black	046122022811	
14	Sponge, EVA, Black	6715020730		59	Power Transformer, 230 V, 50 Hz	2828001117	Europe
15	Button Seesaw, ABS, black	048543060811			Power Transformer, 120 V, 60 Hz	2828000967	USA/CA
16	Shield Fence, ET	6163114510		60	Heatsink (H:30), Regulator TR.	7505206210	
17	Button Tuning, ABS, black	048543059711		61	Tie locking	6528002810	
18	Volume Rotary (Bass/Treble)	3208049510		62	Outlet, 1P	4448103610	Europe
19	Volume Rotary (Balance)	3208052010			Outlet, 3P	4448102910	USA/CA
20	Jack, RCA, 3P	4438109710		S1	Screw #2 BTC 3 X 8 B	8109230083	
21 (SW301)	Switch Push	4628059610		S2	Screw WSAM 4 X 8 B	8159440083	
22 (VR301)	Volume Motor	3228019410		S3	Screw #2 BTC 3 X 6 B	8109230063	
23 (SW801)	Switch Push	4628054410		S4	Screw #2 FTC 3 X 8 B	8129230083	
24 (SW291)	Switch Push	4628043810		S5	Screw #2 WPTC 3 X 8 Y	8159230081	
25 (SW292)	Switch Push	4628049210		S6	HEX MSPW 3 X 12 Y	8099130121	
26	Jack, Phone	4438005010		S7	HEX MSPW 3 X 16 Y	8099130161	
27	Switch Tact	4658003710		S8	Screw, Heatsink	8195000310	
28 (SEN801)	Remote Sensor, TFMT5380 (38 kHz)	2408005001		S9	Screw #1 PTC 3 X 10 B	8119130103	
29 (FIP801)	FIP, 12 LM 8, FL Display	2328130301		S10	Screw Ground	8155000710	
30	Frame Right, SECC	6122632210					
31	Foot, ABS, Gold, Hot stamping	046033102511			<b>MISCELLANEOUS</b>		
32	Foot, ABS, Black	6033102510		P1	P.C.Board Main	4001000300	
33	Cover Bottom, SECC	6122418610		P2	P.C.Board Tuner	4001000400	
34	Chassis, Front, SECC	6122214610		P2-1	P.C.Board Power Supply	4001000410	
35	Fastner	6528300110		P2-2	P.C.Board Surround Main	4001000420	
36	Heatsink Power, Aluminium	7502008310		P2-3	P.C.Board Tone	4001000430	
37	Braket Heat Sink Right, SECC	6505135910		P2-4	P. C. Board Volume	4001000440	
38	Clamp, Wire	6525002210		P3	P.C.Board Front	4001000500	
39	Braket Heat Sink Left, SECC	6505135810		P3-1	P.C.Board Dolby	4001000510	
40	Braket PCB, SECC	6505130010		P3-2	P.C.Board Headphone	4001000520	
41	Frame left, SECC	6122632110		P3-3	P.C.Board Volume LED	4001000530	
42	Heatsink, Regulator TR.	7505206220			Card Cable, 12P 450mm	4118612455	
43	Heatsink, Regulator TR.	7505202410			Card Cable, 15P 180mm	4118615189	
44	Jack, RCA, 2P	4438108510			Card Cable, 18P, 140mm	4118618149	
45	Jack, RCA, 6P	4438108710			Card Cable, 19P, 450mm	4118619459	
46	Jack, RCA, 3P	4438108810			Standby Transformer, 230 V 50 Hz	2828000077	Europe
47	Jack, RCA, 2P, Yellow	4438114210			Standby Transformer, 120 V 60 Hz	2828089007	USA/CA
48	Terminal Speaker, 8P	4408105810					



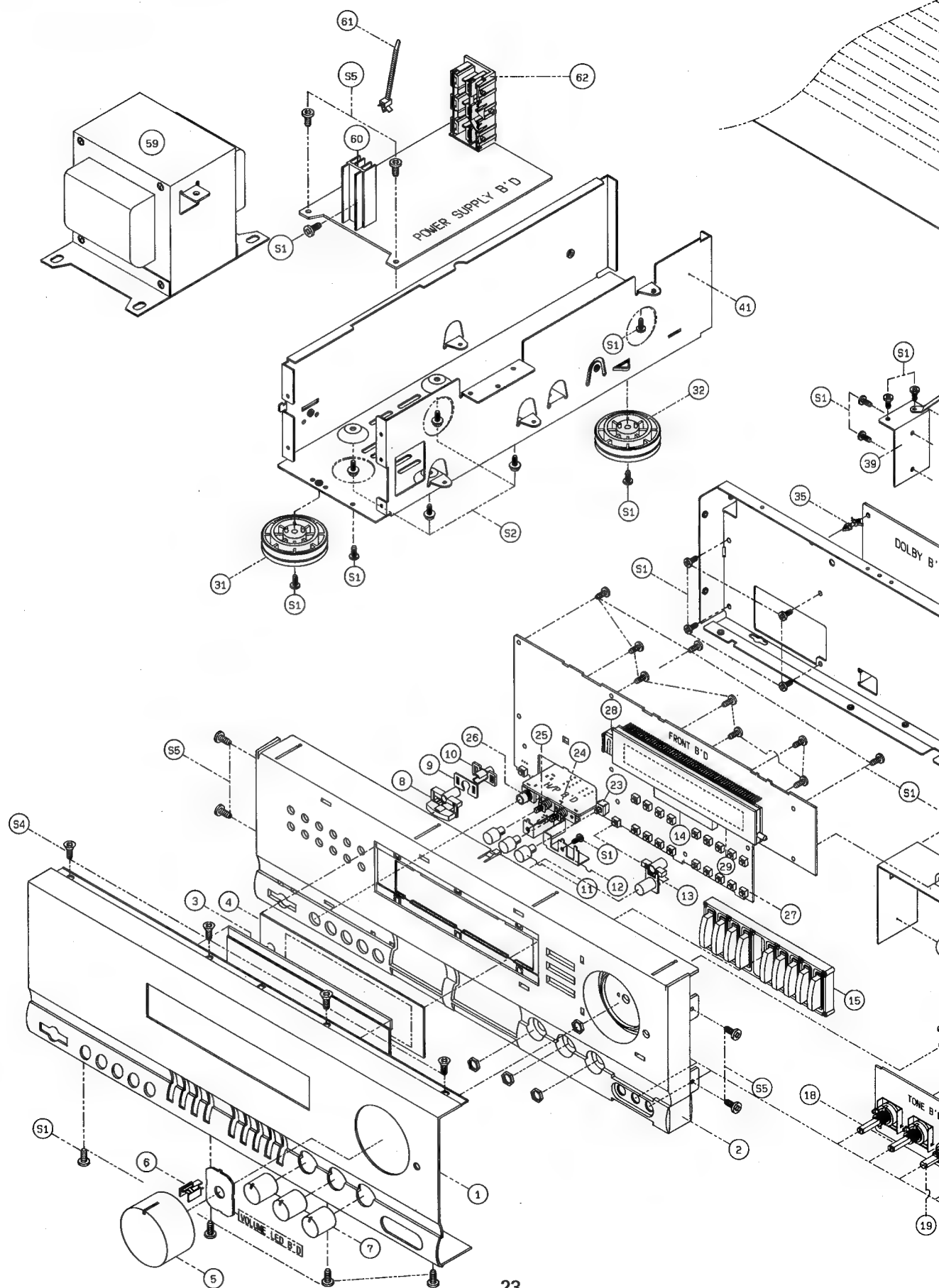
## GENERAL UNIT PARTS LIST

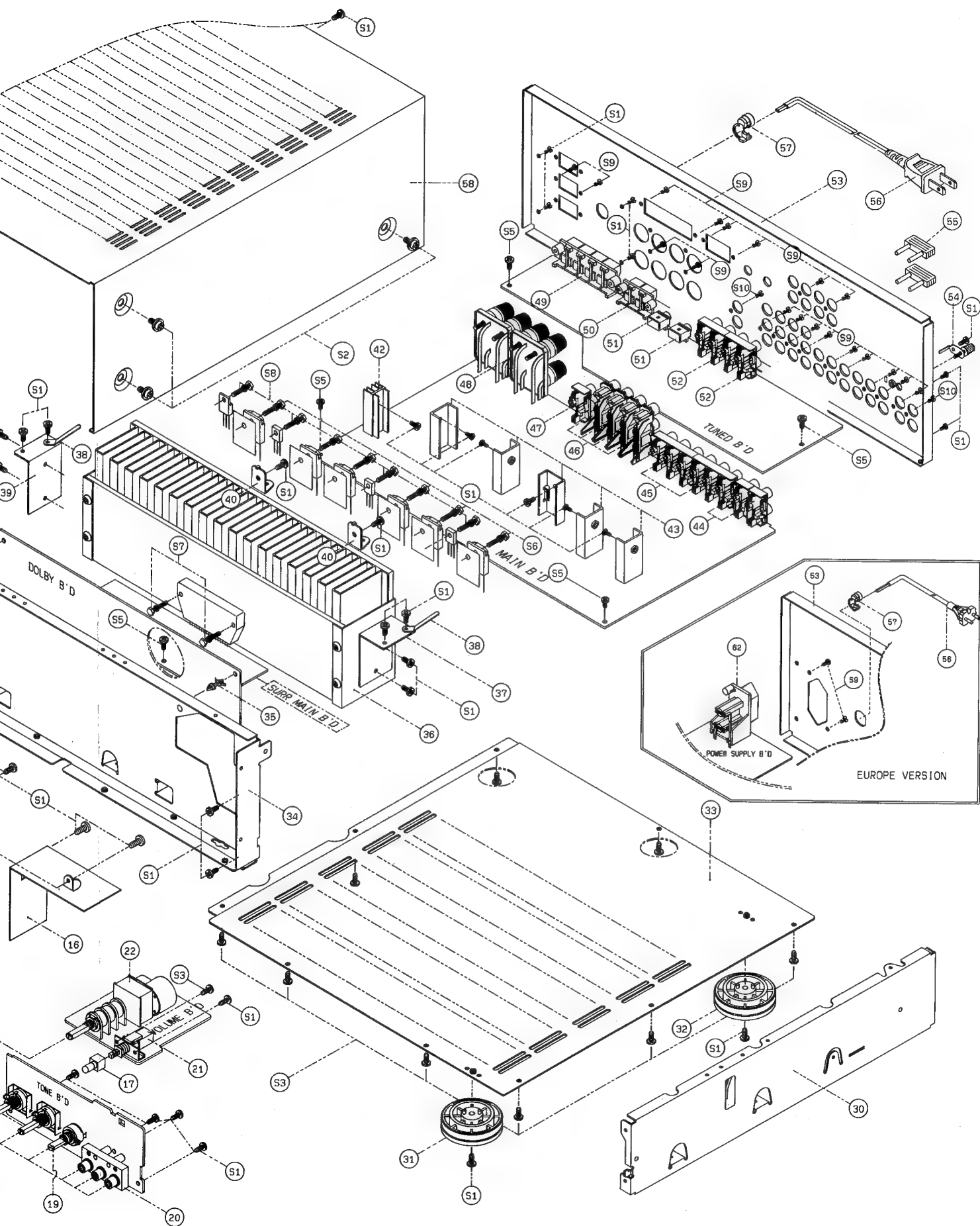
Ref. No.	Description	Mfr. Part No.	Version	Ref. No.	Description	Mfr. Part No.	Version
1	Panel Front, Aluminium, black	048602019321		49	Terminal Speaker, 4P	4408105410	
2	Body, Front, ABS, black	8521008910		50	Terminal Speaker, 2P	4408107010	
3	Window FL, Acryl, Dark Smoke	048553020111		51	Jack, Multiroom	4438006510	
4	Filter, FL, PVC, Red	048535042611		52	Jack, RCA, 4P	4438108610	
5	Knob, Volume, Aluminium, Black	048643006711		53	Chassis, Back, SECC	046202041241	Europe
6	Indicator, Volume, Acryl, Milk	8555049210			Chassis, Back, SECC	046102041321	USA/CA
7	Knob Rotary, ABS, Black	048545126311		54	Ground Terminal	4408103720	
8	Button Power, ABS, black	048543061011		55	Plug, Mono	4328204210	
9	Light Shield, PVC, Black	8535042910		56	Cord, AC Power	4308002310	Europe
10	Indicator, Power, Acryl, Milk	8555048710			Cord, AC Power	4308001410	USA/CA
11	Button Speaker, ABS, black	048545124111		57	Stopper, Cord	6518000111	Europe
12	Bracket Shield, ET	6165148210			Stopper, Cord	6518000710	USA/CA
13	Button Source, ABS, black	048543060911		58	Cover Top, SECC, Black	046122022611	
14	Sponge, EVA, Black	6715020730		59	Power Transformer, 230 V, 50 Hz	2828001117	Europe
15	Button Seesaw, ABS, black	048543060811			Power Transformer, 120 V, 60 Hz	2828009967	USA/CA
16	Shield Fence, ET	6163114510		60	Heatsink (H:30), Regulator TR.	7505206210	
17	Button Tuning, ABS, black	048543059711		61	Tie locking	6528002810	
18	Volume Rotary (Bass/Treble)	3208049510		62	Outlet, 1P	4448103610	Europe
19	Volume Rotary (Balance)	3208052010			Outlet, 3P	4448102910	USA/CA
20	Jack, RCA, 3P	4438109710		S1	Screw #2 BTC 3 X 8 B	8109230083	
21 (SW301)	Switch Push	4628059610		S2	Screw WSAM 4 X 8 B	8159440083	
22 (VR301)	Volume Motor	3228019410		S3	Screw #2 BTC 3 X 6 B	8109230063	
23 (SW801)	Switch Push	4628054410		S4	Screw #2 FTC 3 X 8 B	8129230083	
24 (SW291)	Switch Push	4628043810		S5	Screw #2 WPTC 3 X 8 Y	8159230081	
25 (SW292)	Switch Push	4628049210		S6	HEX MSPW 3 X 12 Y	8099130121	
26	Jack, Phone	4438005010		S7	HEX MSPW 3 X 16 Y	8099130161	
27	Switch Tact	4658003710		S8	Screw, Heatsink	8195000310	
28 (SEN801)	Remote Sensor, TFMT5380 (38 KHZ)	2408005001		S9	Screw #1 PTC 3 X 10 B	8119130103	
29 (FIP801)	FIP, 12 LM 8, FL Display	2328130301		S10	Screw Ground	8155000710	
30	Frame Right, SECC	6122632210					
31	Foot, ABS, Gold, Hot stamping	046033102511			MISCELLANEOUS		
32	Foot, ABS, Black	6033102510		P1	P.C.Board Main	4001000300	
33	Cover Bottom, SECC	6122418610		P2	P.C.Board Tuner	4001000400	
34	Chassis, Front, SECC	6122214610		P2-1	P.C.Board Power Supply	4001000410	
35	Fastner	6528300110		P2-2	P.C.Board Surround Main	4001000420	
36	Heatsink Power, Aluminium	7502008310		P2-3	P.C.Board Tone	4001000430	
37	Bracket Heat Sink Right, SECC	6505135910		P2-4	P. C. Board Volume	4001000440	
38	Clamp, Wire	6525002210		P3	P.C.Board Front	4001000500	
39	Bracket Heat Sink Left, SECC	6505135810		P3-1	P.C.Board Dolby	4001000510	
40	Bracket PCB, SECC	6505130010		P3-2	P.C.Board Headphone	4001000520	
41	Frame left, SECC	6122632110		P3-3	P.C.Board Volume LED	4001000530	
42	Heatsink, Regulator TR.	7505206220			Card Cable, 12P 450mm	4118612455	
43	Heatsink, Regulator TR.	7505202410			Card Cable, 15P 180mm	4118615189	
44	Jack, RCA, 2P	4438108510			Card Cable, 18P, 140mm	4118618149	
45	Jack, RCA, 6P	4438108710			Card Cable, 19P, 450mm	4118619459	
46	Jack, RCA, 3P	4438108810			Standby Transformer, 230 V 50 Hz	2828000077	Europe
47	Jack, RCA, 2P, Yellow	4438114210			Standby Transformer, 120 V 60 Hz	2828089007	USA/CA
48	Terminal Speaker, 8P	4408105810					

# GENERAL UNIT



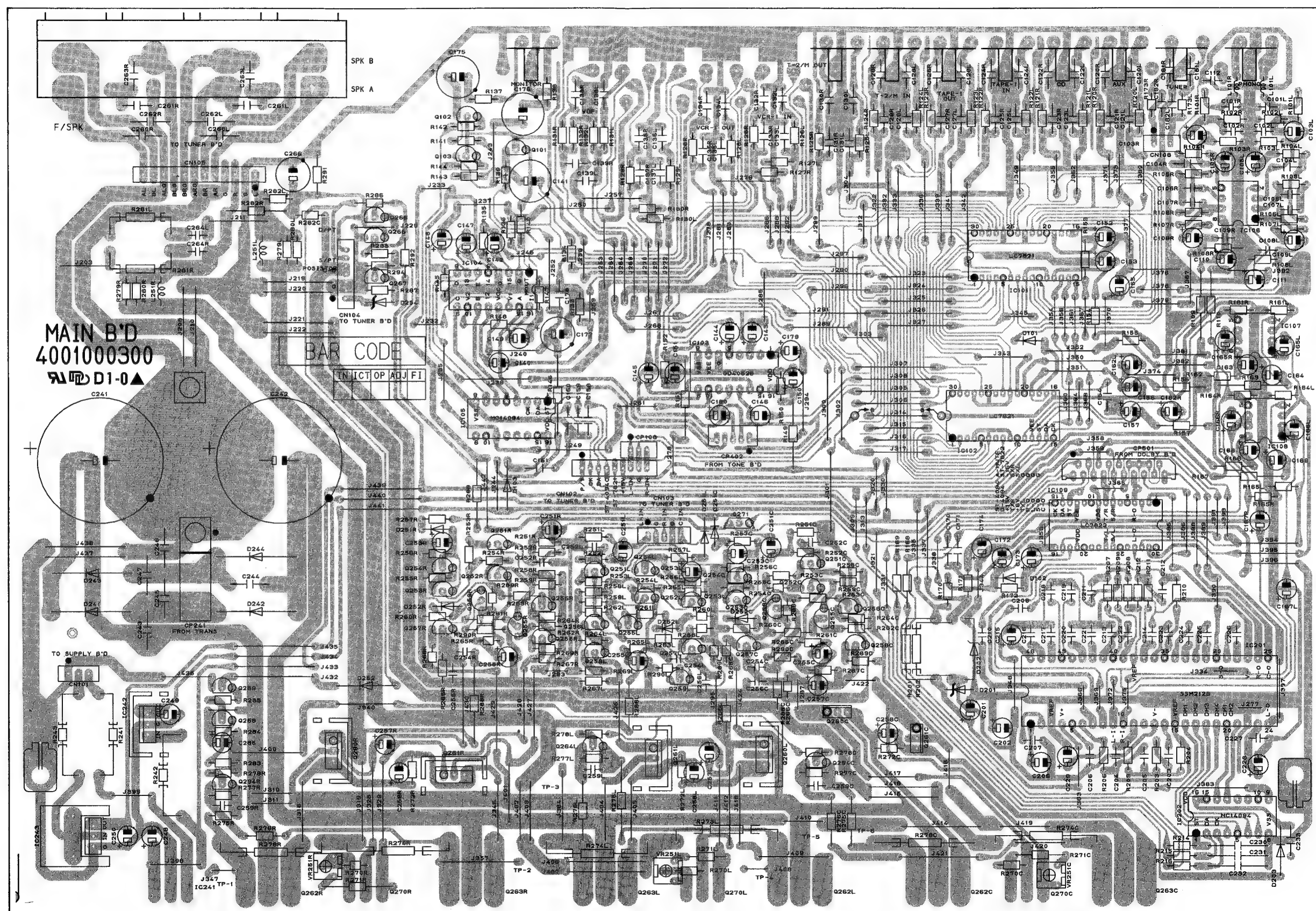
# GENERAL UNIT







## PRINTED CIRCUIT BOARDS





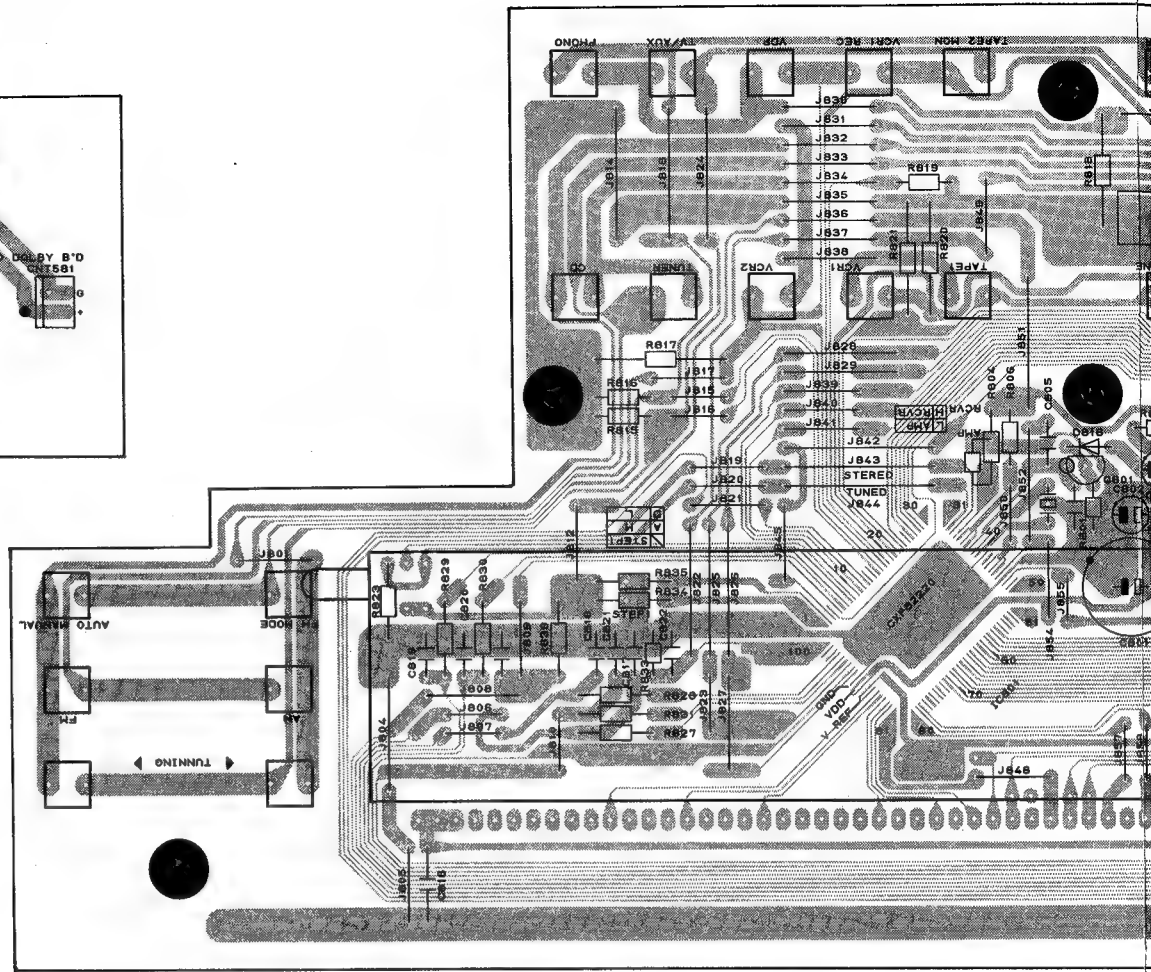
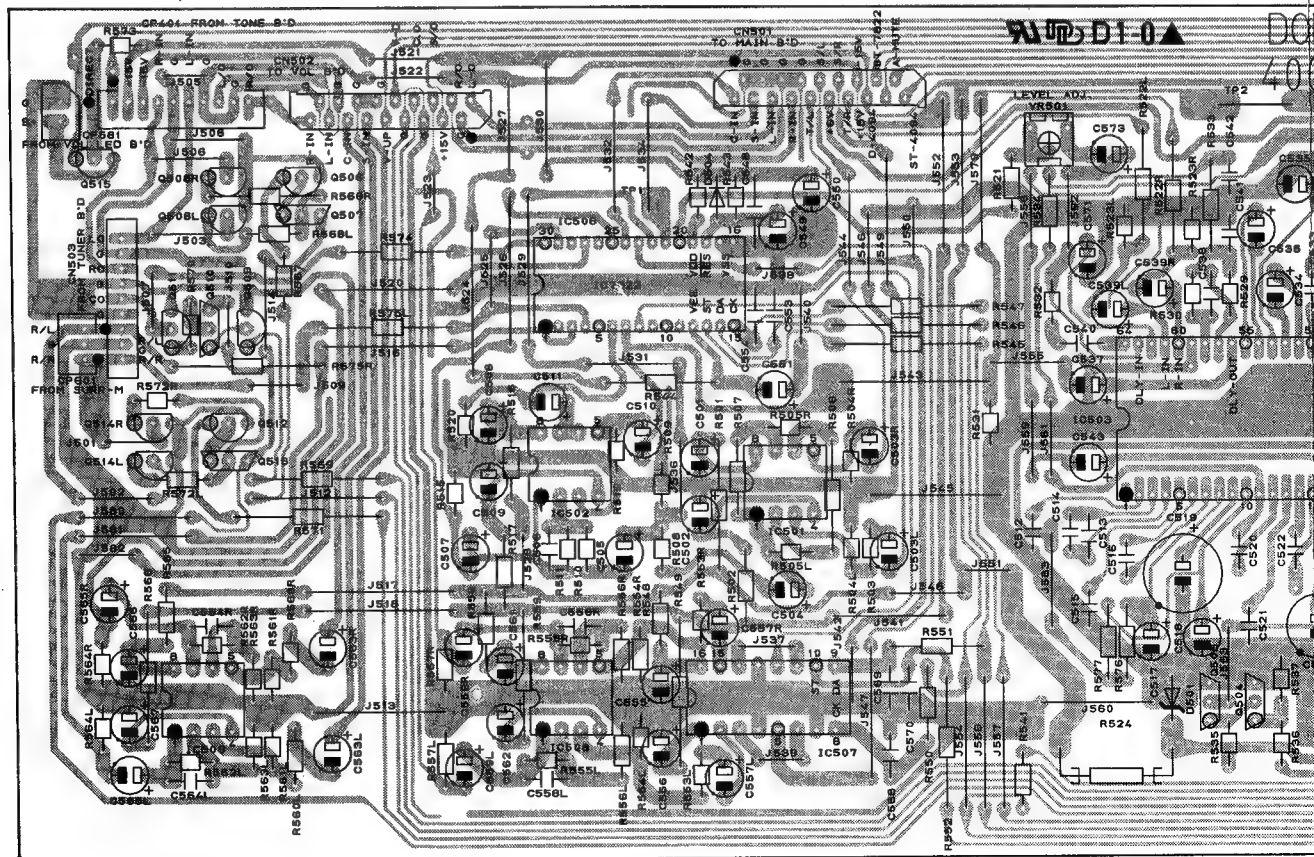
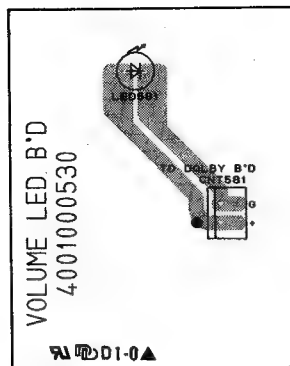




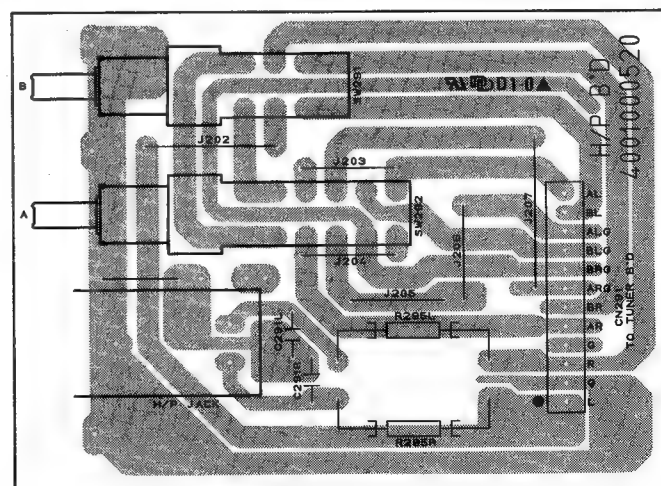
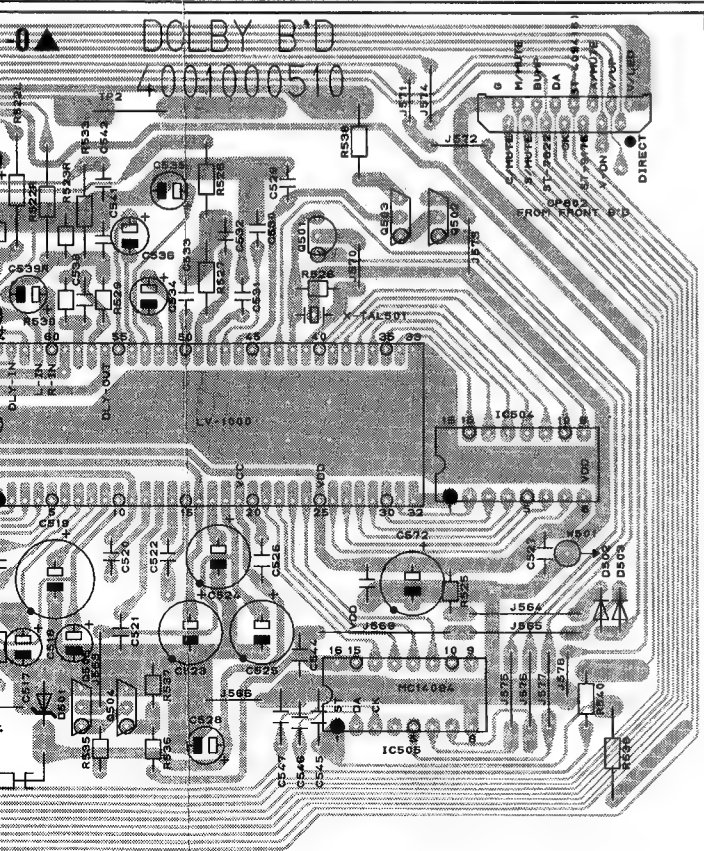
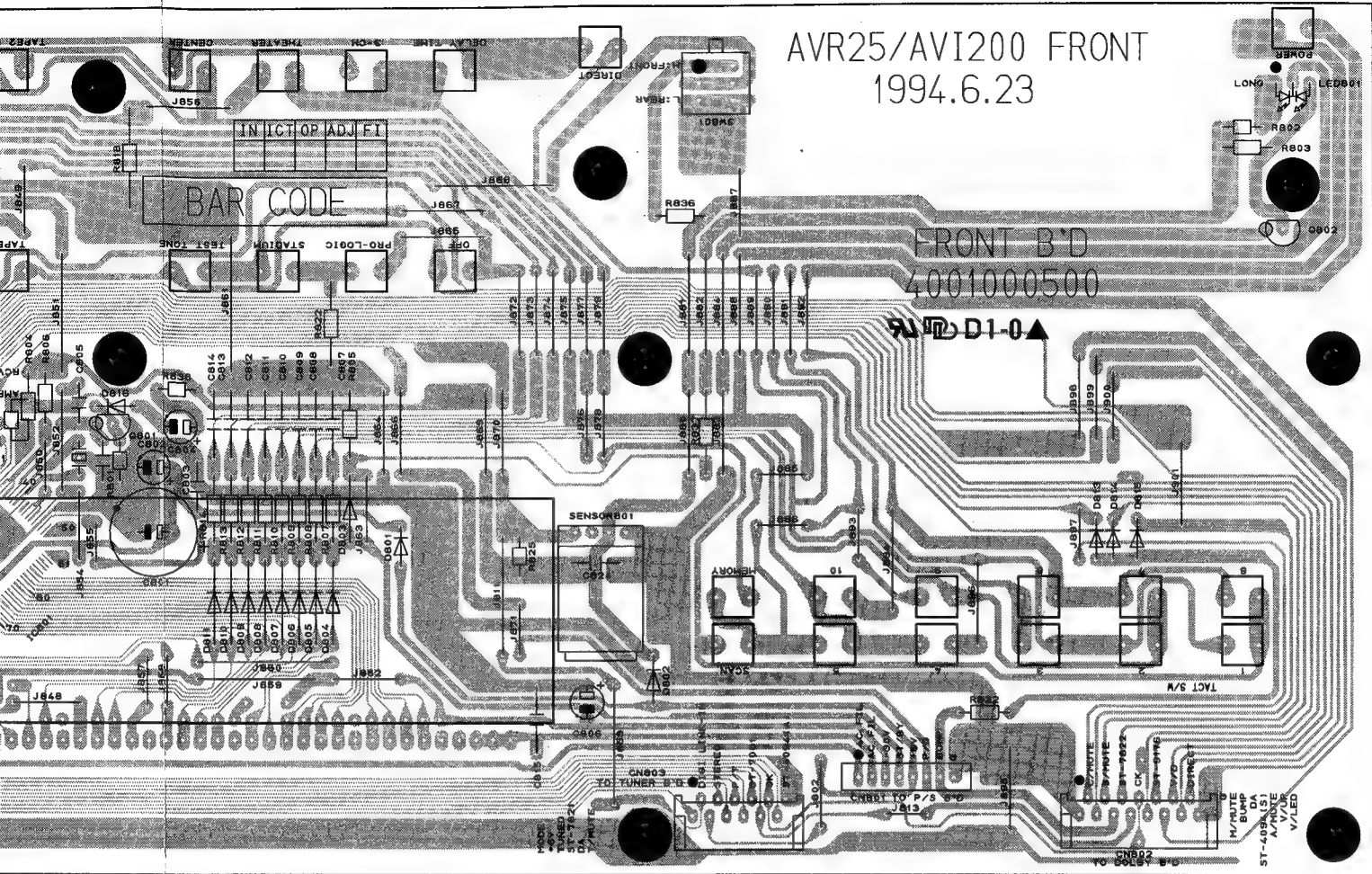




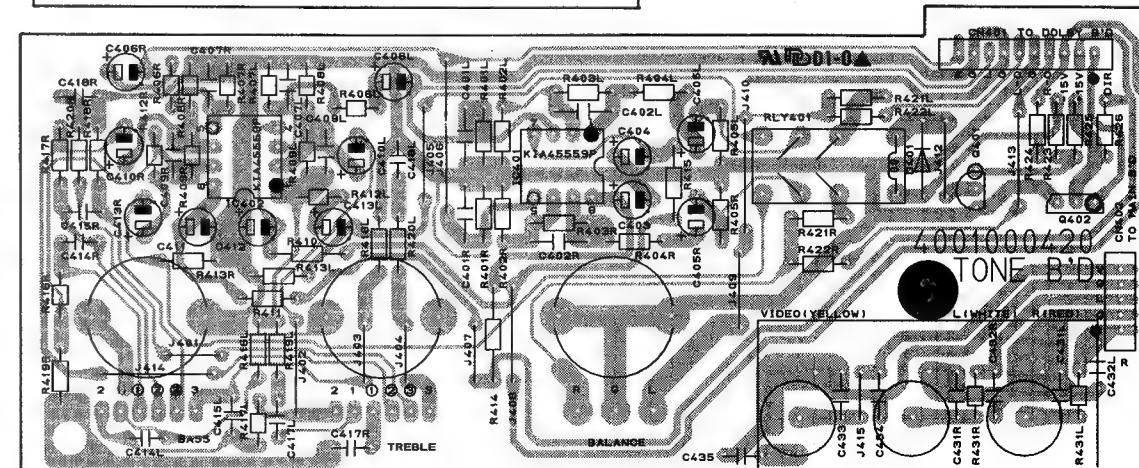
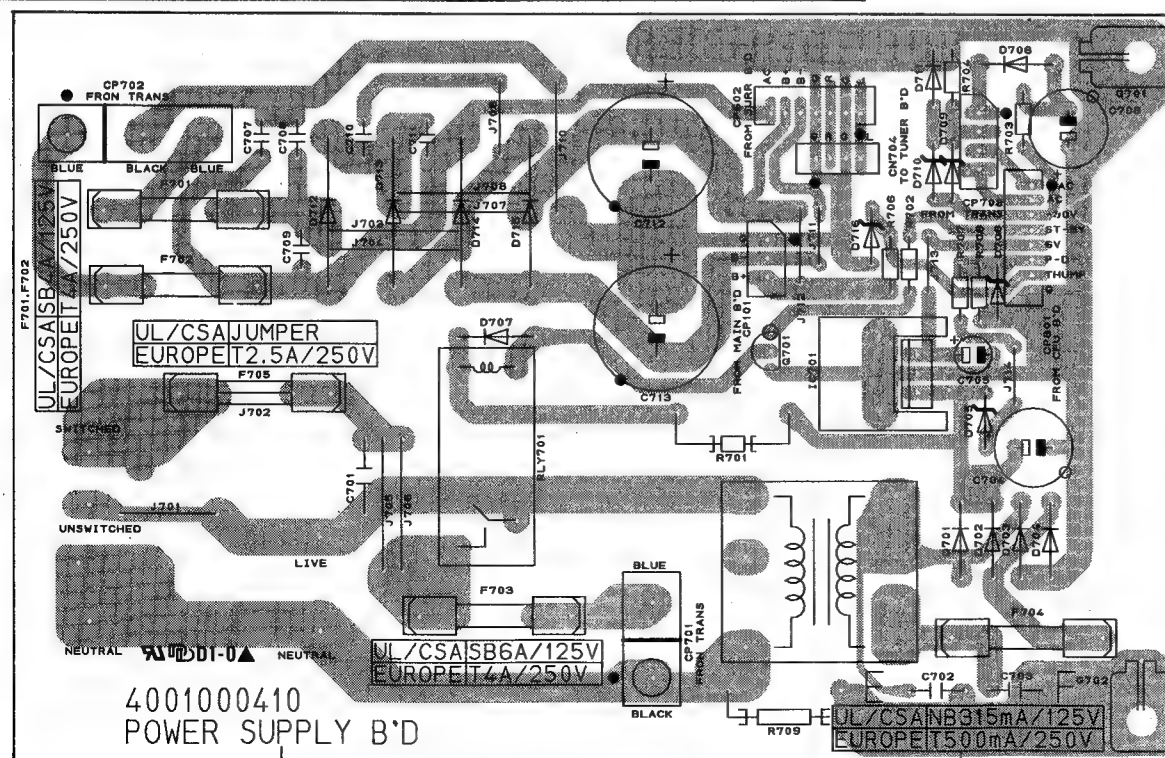
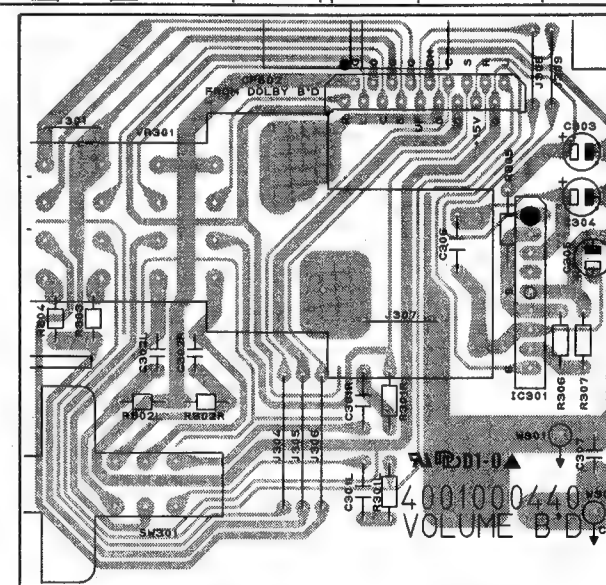
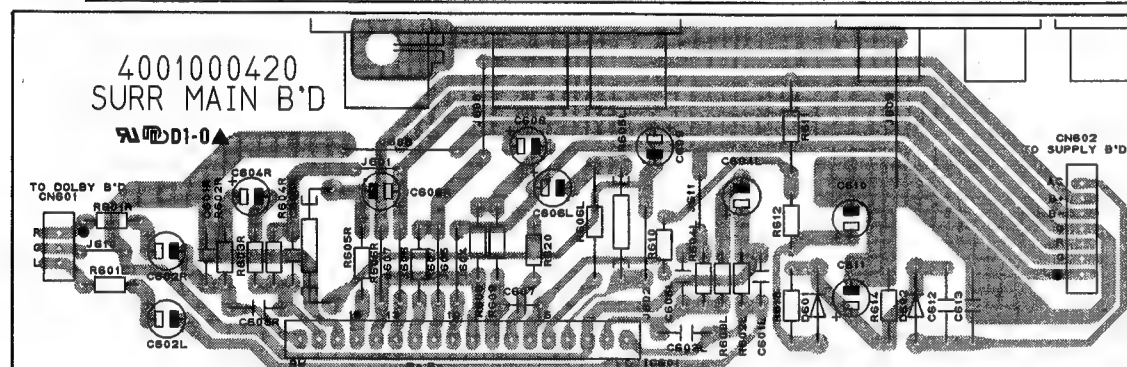
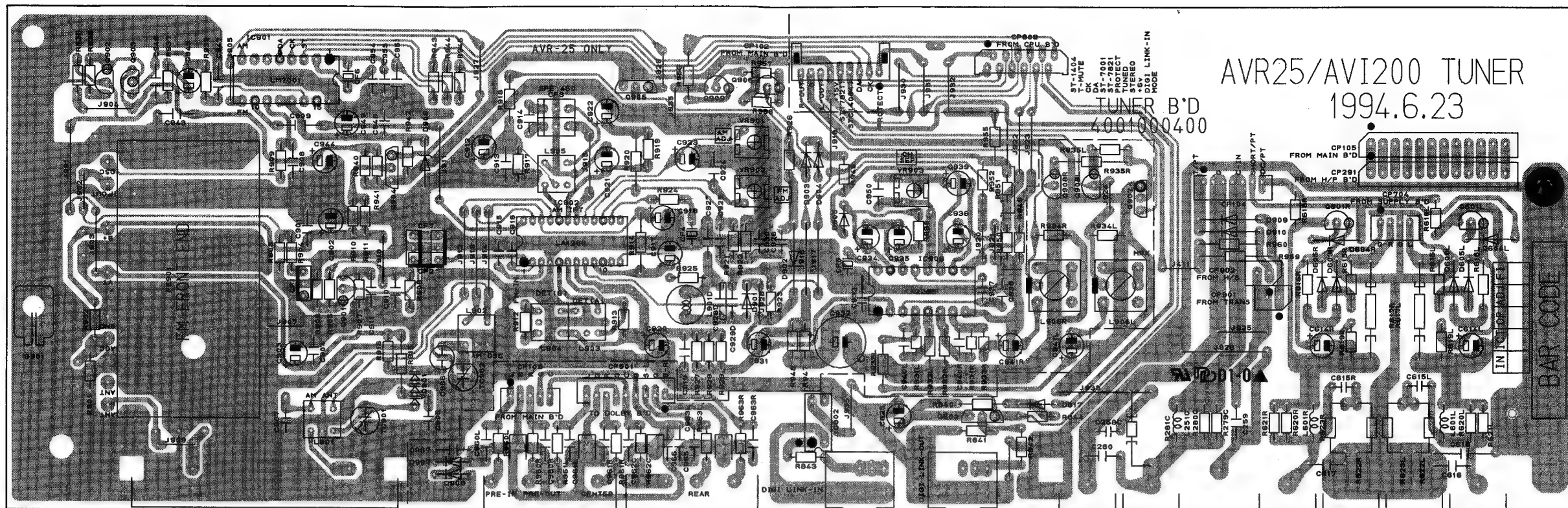




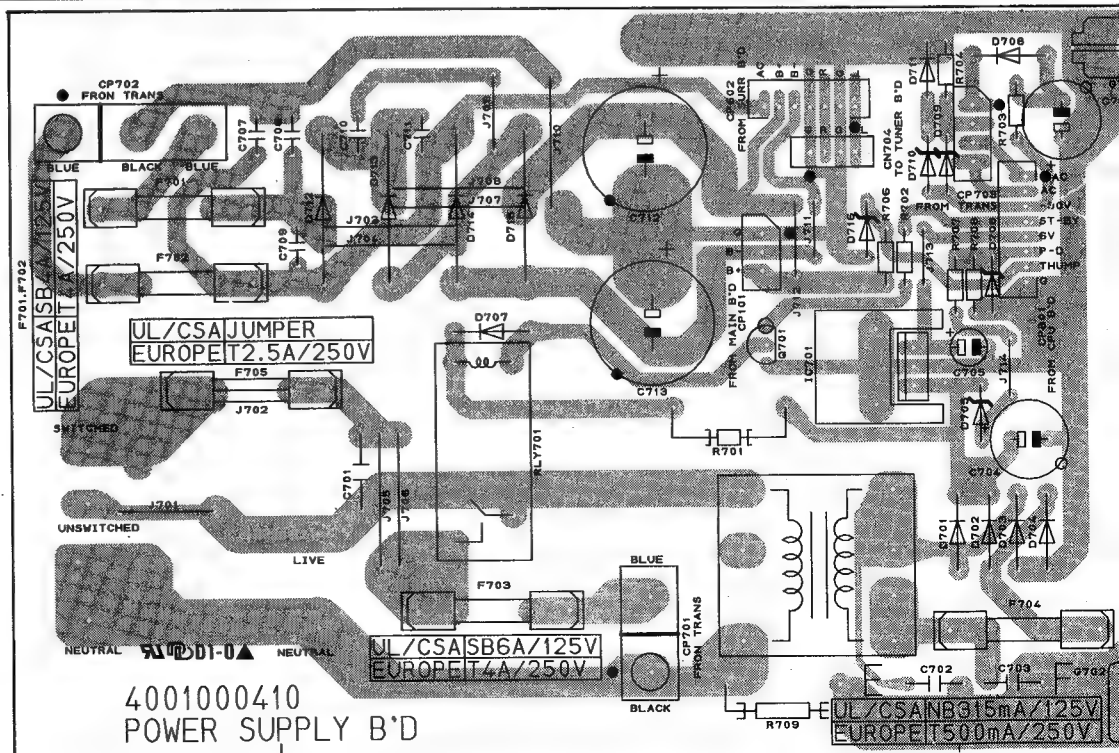
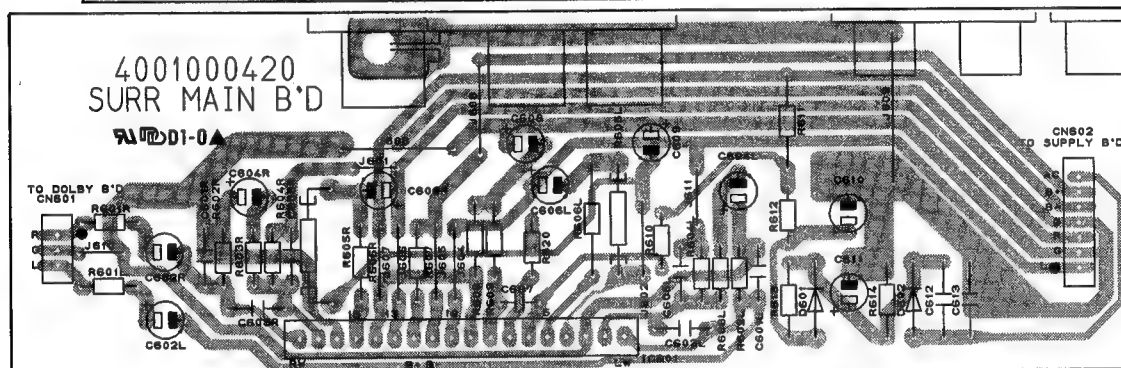
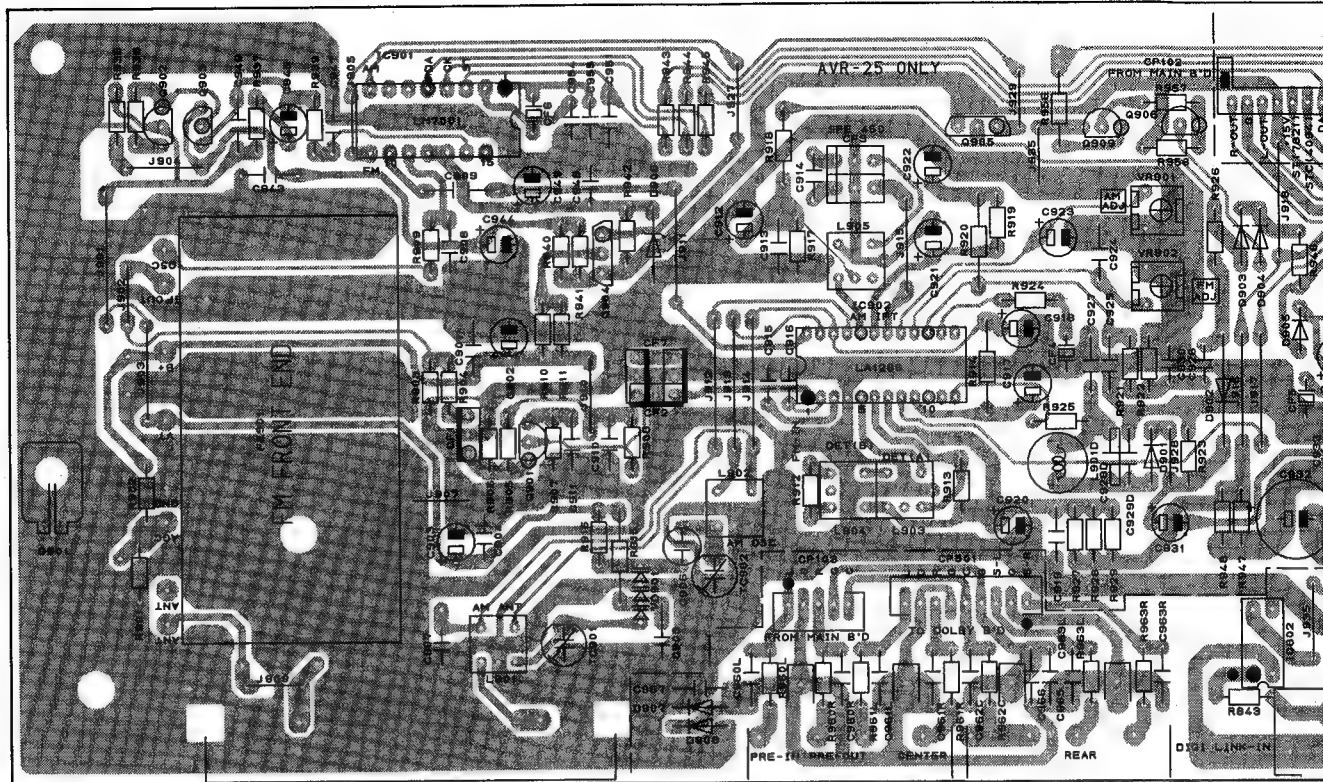
AVR25/AVI200 FRONT  
1994.6.23

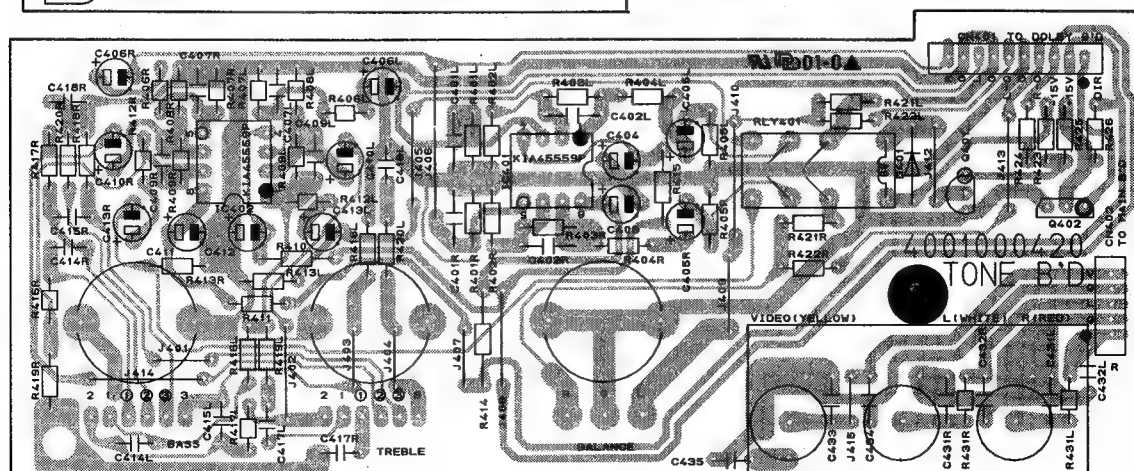
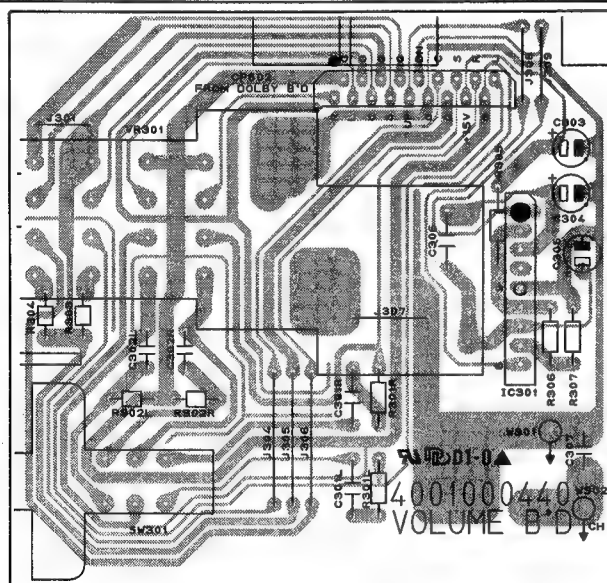
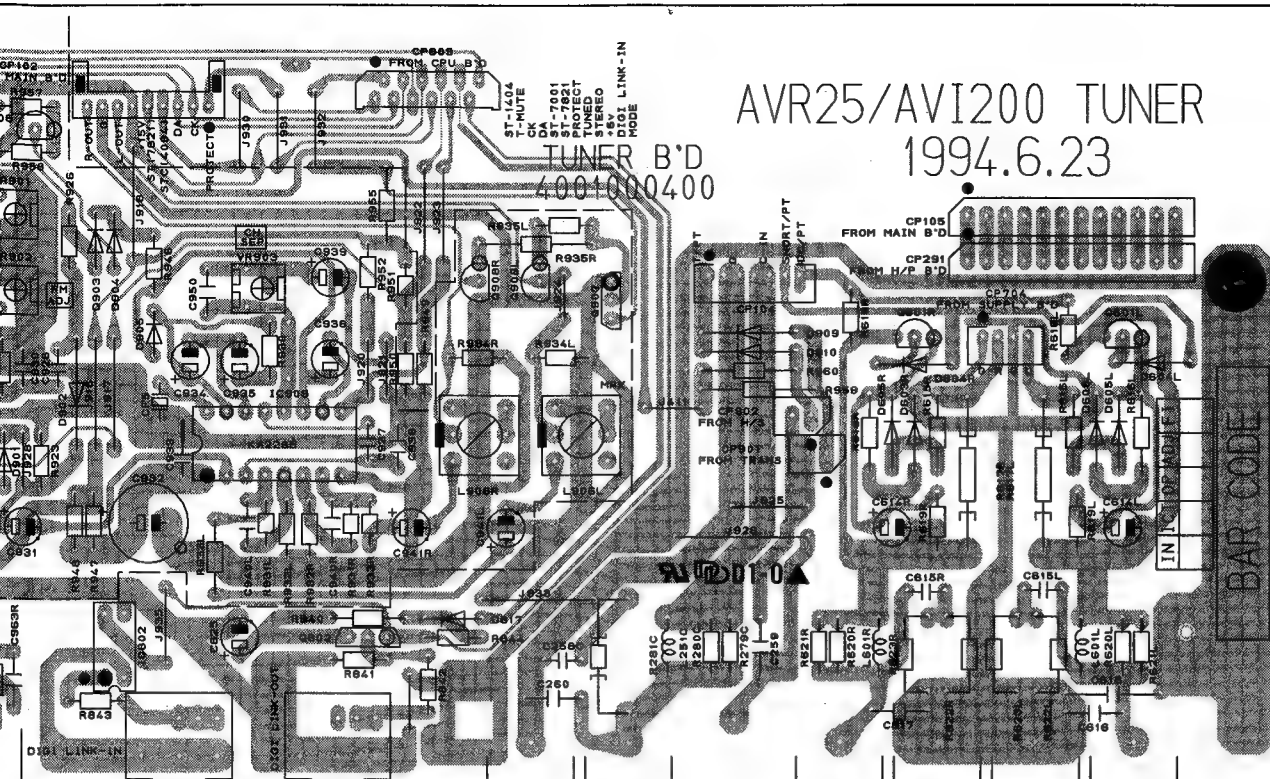












## ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
<b>ASSEMBLY HEATSINK</b>			<b>057502000151</b>		
36	Heatsink Power, Aluminium	7502008310	C173	Electrolytic SA	1 uF 50 V M 3479210971
37	Bracket Heat Sink Right, SECC	6505135910	C174	Electrolytic SG	47 uF 25 V M 3479347041
38	Clamp, Wire	6525002210	C175-C177	Electrolytic SG	470 uF 10 V M 3479347121
39	Bracket Heat Sink Left, SECC	6505135810	C178	Ceramic Tubular	0.1 uF 50 V Z 3519104935
40	Bracket PCB, SECC	6505130010	C179/C180	Electrolytic SA	10 uF 50 V M 3479210071
Q270C	2SC4137, NPN, Bias	2008622110	C201/C202	Electrolytic SG	220 uF 10 V M 3479322121
IC241	GL7815, Regulator	2168601105	C203-C205	Mylar	0.01 uF 100 V J 3679103120
Q270L/R	2SC4137, NPN, Bias	2008622110	C206/C207	Mylar	0.22 uF 63 V K 3679224297
Q262C	2SC3182N-O, NPN	2028307101	C208	Electrolytic SA	4.7 uF 50 V M 3479247971
Q263C	2SA1265N-O, PNP	2028007101	C209-C212	Mylar	0.1 uF 63 V K 3679104297
Q262L/R	2SC3182N-O, NPN	2028307101	C213/C214	Poly	680 pF 50 V J 3619681110
Q263L/R	2SA1265N-O, PNP	2028007101	C215	Electrolytic SA	4.7 uF 50 V M 3479247971
S1	Screw #2 BTC 3 X 8 B	8109230083	C216/C217	Mylar	0.22 uF 63 V K 3679224297
S6	HEX MSPW 3 X 12 Y	8099130121	C218-C221	Mylar	0.33 uF 63 V K 3679334297
S7	HEX MSPW 3 X 16 Y	8099130161	C222-C225	Mylar	0.022 uF 100 V J 3679223120
S8	Screw, Heatsink	8195000310	C226/C227	Mylar	0.1 uF 63 V K 3679104297
<b>END OF ASSEMBLY HEATSINK</b>			C228	Electrolytic SG	100 uF 10 V M 3479310121
<b>P1 Ass'y P.C.B MAIN</b>			C229	Electrolytic SA	10 uF 50 V M 3479210071
<b>CAPACITORS</b>			C230-C232	Ceramic Tubular	100 pF 50 V J 3519101935
<b>054002007585</b>			C233	Ceramic Disc	0.01 uF 50 V Z 3579103530
C102L/R	Ceramic Tubular	100 pF 50 V J 3519101935	C241/C242	Electrolytic HM	10000 uF 80 V M 3419510345
C103L/R	Electrolytic SA	4.7 uF 50 V M 3479247971	C243-C247	Ceramic Disc	0.01 uF 500 V Z 3509103451
C105L/R	Electrolytic SA	33 uF 25 V M 3479233041	C248-C250	Electrolytic SA	1 uF 50 V M 3479210971
C106L/R	Mylar	0.0018 uF 100 V J 3679182120	C251C	Electrolytic SG	47 uF 25 V M 3479347041
C107L/R	Mylar	0.0056 uF 100 V J 3679562120	C251L/R	Electrolytic SG	47 uF 25 V M 3479347041
C108L/R	Electrolytic SA	1 uF 50 V M 3479210971	C252C	Ceramic Disc	68 pF 50 V J 3579680130
C109L/R	Mylar	0.0018 uF 100 V J 3679182120	C252L/R	Ceramic Disc	68 pF 50 V J 3579680130
C110/C111	Electrolytic SG	47 uF 25 V M 3479347041	C253C	Electrolytic SA	1 uF 50 V M 3479210971
C112	Ceramic Disc	0.01 uF 50 V Z 3579103530	C253L/R	Electrolytic SA	1 uF 50 V M 3479210971
C140	Electrolytic SA	33 uF 25 V M 3479233041	C254C	Ceramic Disc	3 pF 50 V D 3579309030
C141	Electrolytic SG	470 uF 10 V M 3479347121	C254L/R	Ceramic Disc	3 pF 50 V D 3579309030
C142	Electrolytic SA	33 uF 25 V M 3479233041	C255C	Electrolytic SG	470 uF 10 V M 3479347121
C143-C146	Electrolytic SA	10 uF 50 V M 3479210071	C255L/R	Electrolytic SG	470 uF 10 V M 3479347121
C147/C148	Electrolytic SA	33 uF 25 V M 3479233041	C256C	Ceramic Tubular	100 pF 50 V J 3519101935
C149	Electrolytic SA	2.2 uF 50 V M 3479222971	C256L/R	Ceramic Tubular	100 pF 50 V J 3519101935
C150-C153	Electrolytic SG	47 uF 25 V M 3479347041	C257C	Electrolytic SA	10 uF 50 V M 3479210071
C154	Ceramic Disc	0.01 uF 50 V Z 3579103530	C257L/R	Electrolytic SA	10 uF 50 V M 3479210071
C155	Electrolytic SA	1 uF 50 V M 3479210971	C258C	Electrolytic SA	4.7 uF 50 V M 3479247971
C156/C157	Electrolytic SG	47 uF 25 V M 3479347041	C258L/R	Electrolytic SA	4.7 uF 50 V M 3479247971
C158	Ceramic Tubular	1000 pF 50 V J 3519102935	C259C	Mylar	0.33 uF 63 V K 3679334297
C159/C160	Ceramic Tubular	100 pF 50 V J 3519101935	C259L/R	Mylar	0.33 uF 63 V K 3679334297
C161	Ceramic Tubular	0.1 uF 50 V Z 3519104935	C264L/R	Mylar	0.047 uF 100 V J 3679473120
C162L/R	Electrolytic SA	4.7 uF 50 V M 3479247971	C265	Electrolytic SA	1 uF 100 V M 3479210997
C163/C164	Electrolytic SG	47 uF 25 V M 3479347041	C266	Electrolytic SG	470 uF 10 V M 3479347121
C165L/R	Electrolytic SA	4.7 uF 50 V M 3479247971	<b>CONNECTORS</b>		
C166L/R	Electrolytic SA	10 uF 50 V M 3479210071	Plug LV AC, 1P		
C167L/R	Electrolytic SA	10 uF 50 V M 3479210071	4428525860		
C168/C169	Electrolytic SG	47 uF 25 V M 3479347041	CN101	Lead Ass'y, 3P, 200 mm	436103203331
C170/C171	Ceramic Tubular	100 pF 50 V J 3519101935	CN102	Lead Ass'y, 9P 100 mm	436209103332
C172	Electrolytic SG	47 uF 25 V M 3479347041	CN103	Lead Ass'y, 5P, 180 mm	436205183332
			CN104	Lead Ass'y, 7P 140 mm	436207143332
			CN105	Lead Ass'y, 12P, 140 mm	435112143401

Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
CP108	Wafer 3P	4428516210	Q260L/R	2SC4883A-Y, NPN	2028316100
CP241	Plug LV AC, 3P	4428525790	Q261C	2SA1859A-Y, PNP	2028016100
CP402	Wafer 5P	4428516410	Q261L/R	2SA1859A-Y, PNP	2028016100
CP501	FPC Plug 19P	4428526310	Q264C	KTC3198Y/KTC1815Y, NPN	2208606104
			Q264L/R	KTC3198Y/KTC1815Y, NPN	2208606104
	<b>DIODES</b>		Q265-Q267	KTC3198Y/KTC1815Y, NPN	2208606104
D101-D103	1N4148M, Switching	2058322101	Q268	BKTA1266Y/KTA1015Y, PNP	2208206105
D201/D202	Diode Zener, DZ 6.8BSC	2258599121	Q269	KTC3198Y/KTC1815Y, NPN	2208606104
D203	1N4148M, Switching	2058322101	Q271	DTC114YS	2208622106
D241-D244	Diode, PX6A03, Rectifier	2058100138			
D251C	1N4148M, Switching	2058322101		<b>RESISTORS</b>	
D251L/R	1N4148M, Switching	2058322101	R101L/R	Carbon Film 1 kohm 1/5 W J	3069102970
D252C	1N4148M, Switching	2058322101	R102L/R	Carbon Film 91 kohm 1/5 W J	3069913970
D252L/R	1N4148M, Switching	2058322101	R103L/R	Carbon Film 91 kohm 1/5 W J	3069913970
D254	Diode Zener, DZ 12.0BSC	2258599116	R104L/R	Carbon Film 820 ohm 1/5 W J	3069821970
			R105L/R	Carbon Film 43 kohm 1/5 W J	3069433970
	<b>ICs</b>		R106L/R	Carbon Film 560 kohm 1/5 W J	3069564970
IC101/IC102	LC7821	2168017132	R107L/R	Carbon Film 560 ohm 1/5 W J	3069561970
IC103	GD4052B	2138001114	R108L/R	Carbon Film 100 kohm 1/5 W J	3069104970
IC104	BA7625, Video Switching	2168027106	R109/R110	Carbon Film 220 ohm 1/5 W J	3069221970
IC105	MC14094BCP	2138009115	R120L/R	Carbon Film 470 ohm 1/5 W J	3069471970
IC106-IC108	KIA4559P/KIA75559P, OP Amp	2168206104	R121L/R	Carbon Film 470 ohm 1/5 W J	3069471970
IC109	LC7822	2168017139	R122L/R	Carbon Film 470 ohm 1/5 W J	3069471970
IC201	SSM-2126A	2168000122	R123L/R	Carbon Film 470 ohm 1/5 W J	3069471970
IC202	MC14094BCP	2138009115	R124L/R	Carbon Film 1 kohm 1/5 W J	3069102970
IC242	GL7806, Regulator	2168601110	R125L/R	Carbon Film 470 ohm 1/5 W J	3069471970
IC243	GL7915, Regulator	2168601111	R126L/R	Carbon Film 470 ohm 1/5 W J	3069471970
			R127L/R	Carbon Film 100 kohm 1/5 W J	3069104970
	<b>COILS</b>		R128L/R	Carbon Film 470 ohm 1/5 W J	3069471970
L251L/R	Coil, Inductor, 0.5 uH	2648001010	R129L/R	Carbon Film 470 ohm 1/5 W J	3069471970
			R130L/R	Carbon Film 100 kohm 1/5 W J	3069104970
	<b>TRANSISTORS</b>		R131L/R	Carbon Film 470 ohm 1/5 W J	3069471970
Q101-Q103	BKTA1266Y/KTA1015Y, PNP	2208206105	R132L/R	Carbon Film 100 kohm 1/5 W J	3069104970
Q251C	KTA2400-GG, PNP	2208006100	R133-R138	Carbon Film 75 ohm 1/5 W J	3069750970
Q251L/R	KTA2400-GG, PNP	2208006100	R139-R144	Carbon Film 100 ohm 1/5 W J	3069101970
Q252C	KTA2400-GG, PNP	2208006100	R145	Carbon Film 75 ohm 1/5 W J	3069750970
Q252L/R	KTA2400-GG, PNP	2208006100	R146	Carbon Film 10 ohm 1/5 W J	3069100970
Q253C	KTA2400-GG, PNP	2208006100	R147/R148	Carbon Film 100 ohm 1/5 W J	3069101970
Q253L/R	KTA2400-GG, PNP	2208006100	R149-R152	Carbon Film 3.3 kohm 1/5 W J	3069332970
Q254C	BKTA1266Y/KTA1015Y, PNP	2208206105	R153/R154	Carbon Film 220 ohm 1/5 W J	3069221970
Q254L/R	BKTA1266Y/KTA1015Y, PNP	2208206105	R155	Carbon Film 100 kohm 1/5 W J	3069104970
Q255C	KTC2240BL/KTC3200, NPN	2208606108	R156/R157	Carbon Film 220 ohm 1/5 W J	3069221970
Q255L/R	KTC2240BL/KTC3200, NPN	2208606108	R161L/R	Carbon Film 100 kohm 1/5 W J	3069104970
Q256C	KTC2240BL/KTC3200, NPN	2208606108	R162/R163	Carbon Film 220 ohm 1/5 W J	3069221970
Q256L/R	KTC2240BL/KTC3200, NPN	2208606108	R164L/R	Carbon Film 100 kohm 1/5 W J	3069104970
Q257C	KTA949/KTA1024Y, PNP	2208206102	R165L/R	Carbon Film 100 kohm 1/5 W J	3069104970
Q257L/R	KTA949/KTA1024Y, PNP	2208206102	R166/R167	Carbon Film 220 ohm 1/5 W J	3069221970
Q258C	KTC2229/KTC3206Y, NPN	2208606118	R168/R169	Carbon Film 100 ohm 1/5 W J	3069101970
Q258L/R	KTC2229/KTC3206Y, NPN	2208606118	R170/R171	Carbon Film 220 ohm 1/5 W J	3069221970
Q259C	KTA1268/KTA970, PNP	2008206104	R172	Carbon Film 100 kohm 1/5 W J	3069104970
Q259L/R	KTA1268/KTA970, PNP	2008206104	R173L/R	Carbon Film 470 ohm 1/5 W J	3069471970
Q260C	2SC4883A-Y, NPN	2028316100	R201/R202	Metal Film 150 ohm 1 W J	3029151470



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Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
C614L/R	Electrolytic SA 4.7 uF 50 V M	3479247971	<b>CAPACITORS</b>		
C615L/R	Mylar 0.047 uF 100 V J	3679473120	C701	Ceramic Disc 0.0047 uF 400 V Z	3549472410
C825	Electrolytic SG 47 uF 25 V M	3479347041	C702/C703	Ceramic Tubular 0.047 uF 50 V Z	3519473935
C965-C967	Ceramic Tubular 0.1 uF 50 V Z	3519104935	C704	Electrolytic SG 220 uF 16 V M	3479322131
<b>DIODES</b>			C705	Electrolytic SA 1 uF 50 V M	3479210971
D603L/R	1N4148M, Switching	2058322101	C706	Electrolytic SG 100 uF 50 V M	3479310171
D604L/R	1N4148M, Switching	2058322101	C707-C711	Mylar 0.047 uF 100 V J	3679473120
D605L/R	1N4148M, Switching	2058322101	C712	Electrolytic SG 3300 uF 35 V M	3409333262
D906	Diode Zener, UZ 5.1BSB	2258599103	C713	Electrolytic SG 2200 uF 35 V M	3409322269
D907-D910	1N4148M, Switching	2058322101	<b>CONNECTORS</b>		
<b>COILS</b>			CN704	Lead Ass'y, 4P, 160 mm	436204163332
L251C	Coil, Inductor, 0.5 uH	2648001010	CP101	Plug LV AC, 3P	4428525790
L601L/R	Coil, Inductor, 0.5 uH	2648001010	CP602	Wafer 7P	4428516610
<b>TRANSISTORS</b>			CP701	Plug LV AC, 2P	4428525780
Q601L/R	KTC3198Y/KTC1815Y, NPN	2208606104	CP702	Plug LV AC, 3P	4428525790
<b>RESISTORS</b>			CP703	Wafer 4P	4428505610
R280C	Carbon Film 22 ohm 1/5 W J	3069220970	CP801	Wafer 8P	4428516710
R615L/R	Carbon Film 390 ohm 1/5 W J	3069391970	<b>DIODES</b>		
R616L/R	Carbon Film 15 kohm 1/5 W J	3069153970	D701-D704	1N4002, Rectifier	2258100135
R617L/R	Cement 0.47 ohm 2 W J	3059478572	D705/D706	Diode Zener, UZ 5.1BSB	2258599103
R618L/R	Carbon Film 22 kohm 1/5 W J	3069223970	D707/D708	1N4002, Rectifier	2258100135
R619L/R	Carbon Film 2.2 kohm 1/5 W J	3069222970	D709	Diode Zener, UZ 7.5BSC	2258599130
R620L/R	Carbon Film 22 ohm 1/5 W J	3069220970	D710/D711	Diode Zener, UZ 15.0BSC	2258599109
R621L/R	Carbon Film 22 ohm 1/5 W J	3069220970	D712-D715	1N5402, Rectifier	2058100136
R622L/R	Carbon Film 22 ohm 1/5 W J	3069220970	D716	Diode Zener, UZ 5.1BSB	2258599103
R623L/R	Carbon Film 22 ohm 1/5 W J	3069220970	<b>IC</b>		
R840	Carbon Film 100 ohm 1/5 W J	3069101970	IC701	GL7806, Regulator	2168601110
R841	Carbon Film 47 kohm 1/5 W J	3069473970	<b>TRANSISTOR</b>		
R842	Carbon Film 47 ohm 1/5 W J	3069470970	Q701	KTC3198Y/KTC1815Y, NPN	2208606104
R843	Carbon Film 270 ohm 1/5 W J	3069271970	<b>RESISTORS</b>		
R844	Carbon Film 3.9 kohm 1/5 W J	3069392970	R701	Metal Film 10 ohm 1 W J	3029100470
R949/R950	Carbon Film 4.7 kohm 1/5 W J	3069472970	R702	Carbon Film 2 kohm 1/5 W J	3069202970
R960L/R	Carbon Film 1 kohm 1/5 W J	3069102970	R703	Carbon Film 330 ohm 1/5 W J	3069331970
R961L/R	Carbon Film 1 kohm 1/5 W J	3069102970	R704	Carbon Film 15 kohm 1/5 W J	3069153970
R962C	Carbon Film 1 kohm 1/5 W J	3069102970	R706	Carbon Film 6.8 kohm 1/5 W J	3069682970
R963L/R	Carbon Film 1 kohm 1/5 W J	3069102970	R707	Carbon Film 1 kohm 1/5 W J	3069102970
<b>MISCELLANEOUS</b>			R708	Carbon Film 10 kohm 1/5 W J	3069103970
G901	Plate, Ground	4235007310	R709	Carbon Film 3.3 Mohm 1/2 W J	3029335370
49	Terminal Speaker, 4P	4408105410	<b>RELAY</b>		
50	Terminal Speaker, 2P	4408107010	RLY701	HR-CR313(TV-3)	5528042002
51	Jack, Multiroom	4438006510	<b>MISCELLANEOUS</b>		
52	Jack, RCA, 4P	4438108610	F701	Fuse, SB 4A 125V	5508102921
S5	Screw #2 WPTC 3 X 8 Y	8159230081	F702	Fuse, SB 4A 125V	5508102921
<b>END OF P.C.B TUNER</b>			F703	Fuse, SB 6A 125V	5508103121

Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
F704	Fuse, NB 315mA 125V	5508201421	R613	Carbon Film 220 kohm 1/5 W J	3069224970
G701	Plate, Ground	4235007310	R614	Carbon Film 4.7 kohm 1/5 W J	3069472970
G702	Plate, Ground	4235007310	R620	Carbon Film 100 ohm 1/5 W J	3069101970
60	Heatsink (H-30), Regulator TR.	7505206210	<b>MISCELLANEOUS</b>		
61	Tie locking	6528002810		Plate, Ground	4235007310
62	Outlet, 3P	4448102910	S5	Screw #2 WPTC 3 X 8 Y	8159230081
S1	Screw #2 BTC 3 X 8 B	8109230083	<b>END OF P.C.B SURROUND</b>		
S5	Screw #2 WPTC 3 X 8 Y	8159230081	<b>P2-3 Ass'y P.C.B TONE</b>		
	Standby Transformer, 120 V 60 Hz	2828089007	<b>054002007604</b>		
	Pin, Solder	4228001410	<b>CAPACITORS</b>		
	Clip Fuse	4255001010	C402L/R	Ceramic Tubular 22 pF 50 V J	3519220935
<b>END OF P.C.B POWER SUPPLY</b>			C403/C404	Electrolytic SG 47 uF 25 V M	3479347041
<b>P2-2</b>	<b>Ass'y P.C.B SURROUND</b>	<b>054002007602</b>	C405L/R	Electrolytic SA 10 uF 50 V M	3479210071
	<b>CAPACITORS</b>		C406L/R	Electrolytic SA 10 uF 50 V M	3479210071
C601L/R	Ceramic Tubular 2200 pF 50 V J	3519222935	C407L/R	Ceramic Disc 39 pF 50 V J	3579390130
C602L/R	Electrolytic SA 2.2 uF 50 V M	3479222971	C409L/R	Ceramic Tubular 39 pF 50 V J	3519390935
C603L/R	Ceramic Tubular 100 pF 50 V J	3519101935	C410L/R	Electrolytic SA 10 uF 50 V M	3479210071
C604L/R	Electrolytic SA 2.2 uF 50 V M	3479222971	C411/C412	Electrolytic SG 47 uF 25 V M	3479347041
C605L/R	Ceramic Tubular 4.7 pF 50 V J	3519047935	C413L/R	Electrolytic SA 10 uF 50 V M	3479210071
C606L/R	Electrolytic SA 47 uF 35 V M	3479247061	C414L/R	Mylar 0.015 uF 100 V J	3679153120
C607	Mylar 0.1 uF 63 V K	3679104297	C415L/R	Mylar 0.082 uF 100 V J	3679823120
C608/C809	Electrolytic SA 10 uF 50 V M	3479210071	C417L/R	Mylar 0.0018 uF 100 V J	3679182120
C610/C611	Electrolytic SA 10 uF 50 V M	3479210071	C418L/R	Mylar 0.012 uF 100 V J	3679123120
C612/C613	Ceramic Tubular 2200 uF 50 V Z	3519222935	<b>CONNECTORS</b>		
	<b>CONNECTORS</b>		CN401	Lead Ass'y, 10P, 220 mm	436210223332
CN601	Lead Ass'y, 3P, 180 mm	436203183332	CN402	Lead Ass'y, 5P, 400 mm	436205403332
CN602	Lead Ass'y, 7P, 350 mm	436207353332	<b>DIODE</b>		
	<b>DIODES</b>		D401	1N4148M, Switching	2058322101
D601/602	1N4002, Rectifier	2258100135	<b>ICs</b>		
D606	1N4002, Rectifier	2258100135	IC401/IC402	KIA4559P/KIA75559P, OP Amp	2168206104
	<b>IC</b>		<b>TRANSISTORS</b>		
IC601	STK4132 II, Hybrid IC	2178317129	Q401	BKTA1266Y/KTA1015Y, PNP	2208206105
	<b>RESISTORS</b>		Q402	DTC114YS	2208622106
R601L/R	Carbon Film 1 kohm 1/5 W J	3069102970	<b>RESISTORS</b>		
R602L/R	Carbon Film 47 kohm 1/5 W J	3069473970	R401L/R	Carbon Film 100 kohm 1/5 W J	3069104970
R603L/R	Carbon Film 2 kohm 1/5 W J	3069202970	R402L/R	Carbon Film 820 ohm 1/5 W J	3069821970
R604L/R	Carbon Film 43 kohm 1/5 W J	3069433970	R403L/R	Carbon Film 5.1 kohm 1/5 W J	3069512970
R605L/R	Metal Film 2.2 kohm 1 W J	3029222470	R404L/R	Carbon Film 560 ohm 1/5 W J	3069561970
R606L/R	Carbon Film 1.3 kohm 1/5 W J	3069132970	R405L/R	Carbon Film 100 kohm 1/5 W J	3069104970
R607	Carbon Film 10 ohm 1/5 W J	3069100970	R406L/R	Carbon Film 1 kohm 1/5 W J	3069102970
R608	Carbon Film 1.5 kohm 1/5 W J	3069152970	R407L/R	Carbon Film 100 kohm 1/5 W J	3069104970
R609	Carbon Film 1 kohm 1/5 W J	3069102970	R408L/R	Carbon Film 100 kohm 1/5 W J	3069104970
R610	Carbon Film 10 kohm 1/5 W J	3069103970	R409L/R	Carbon Film 1 Mohm 1/5 W J	3069105970
R611	Carbon Film 390 kohm 1/5 W J	3069394970	R410/R411	Carbon Film 220 ohm 1/5 W J	3069221970
R612	Carbon Film 68 kohm 1/5 W J	3069683970			

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Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
R836	Carbon Film 470 ohm 1/5 W J	3069471970	C540	Ceramic Tubular 680 pF 50 V J	3519681935
R837	Carbon Film 1 kohm 1/5 W J	3069102970	C541	Mylar 0.0056 uF 100 V J	3679562120
R838	Carbon Film 330 ohm 1/5 W J	3069331970	C542	Mylar 0.0047 uF 100 V J	3679472120
R839	Carbon Film 47 kohm 1/5 W J	3069473970	C543	Electrolytic SA 10 uF 50 V M	3479210071
R844/R845	Carbon Film 3.3 ohm 1/5 W J	3069339970	C544	Ceramic Tubular 0.1 uF 50 V Z	3519104935
<b>RESONATOR</b>			C545-C547	Ceramic Tubular 100 pF 50 V J	3519101935
X-TAL801	Resonator, CST10.00MTW	3938131750	C548	Ceramic Tubular 0.01 uF 50 V Z	3519103935
<b>MISCELLANEOUS</b>			C549	Electrolytic SA 1 uF 50 V M	3479210971
23(SW801)	Switch Push	4628054410	C550/C551	Electrolytic SG 47 uF 25 V M	3479347041
27	Switch Tact	4658003710	C553/C554	Ceramic Tubular 100 pF 50 V J	3519101935
28(SEN801)	Remote Sensor, TFMT5380 (38 kHz)	2408005001	C555/C556	Electrolytic SG 47 uF 25 V M	3479347041
29(FIP801)	FIP, 12 LM 8, FL Display	2328130301	C557L/R	Electrolytic SA 1 uF 50 V M	3479210971
S1	Screw #2 BTC 3 X 8 B	8109230083	C558L/R	Ceramic Tubular 0.001 uF 50 V Z	3519102935
<b>END OF P.C.B FRONT</b>			C559L/R	Electrolytic SA 3.3 uF 50 V M	3479233971
<b>P3-1</b>	<b>Ass'y P.C.B DOLBY</b>	<b>054002007592</b>	C561/C562	Electrolytic SG 47 uF 25 V M	3479347041
<b>CAPACITORS</b>			C563L/R	Electrolytic SA 1 uF 50 V M	3479210971
C501/C502	Electrolytic SG 47 uF 25 V M	3479347041	C564L/R	Ceramic Tubular 0.001 uF 50 V Z	3519102935
C503L/R	Electrolytic SA 4.7 uF 50 V M	3479247971	C565L/R	Electrolytic SA 3.3 uF 50 V M	3479233971
C504	Electrolytic SA 3.3 uF 50 V M	3479233971	C566/C567	Electrolytic SG 47 uF 25 V M	3479347041
C505	Electrolytic SA 10 uF 50 V M	3479210071	C568-C570	Ceramic Tubular 100 pF 50 V J	3519101935
C507	Electrolytic SA 3.3 uF 50 V M	3479233971	C571	Electrolytic SA 10 uF 50 V M	3479210071
C508/C509	Electrolytic SG 47 uF 25 V M	3479347041	C572	Electrolytic SG 220 uF 16 V M	3479322131
C510	Electrolytic SA 2.2 uF 50 V M	3479222971	C573	Electrolytic SA 10 uF 50 V M	3479210071
C511	Electrolytic SA 3.3 uF 50 V M	3479233971	<b>CONNECTORS</b>		
C512	Mylar 0.15 uF 63 V K	3679154297	CN501	FPC Plug 19P	4428526310
C513	Ceramic Tubular 150 pF 50 V J	3519151935	CN502	FPC Plug 18P	4428526305
C514	Electrolytic SG 220 uF 10 V M	3479322121	CN503	Lead Ass'y, 9P, 450 mm	436209453332
C515	Poly 120 pF 50 V J	3619121110	CP401	Wafer 10P	4428516910
C516	Poly 680 pF 50 V J	3619681110	CP581	Wafer 2P	4428508210
C517	Electrolytic SA 4.7 uF 50 V M	3479247971	CP601	Wafer 3P	4428516210
C518	Electrolytic SG 47 uF 50 V M	3479347071	CP802	FPC Plug 15P	4428526270
C519	Electrolytic SG 470 uF 10 V M	3479347121	<b>DIODES</b>		
C520	Poly 680 pF 50 V J	3619681110	D501	Diode Zener, UZ 12.0BSC	2258599116
C521	Mylar 0.022 uF 100 V J	3679223120	D502-D504	1N4148M, Switching	2058322101
C522	Poly 150 pF 50 V J	3619151110	<b>ICs</b>		
C523-C525	Electrolytic SG 220 uF 16 V M	3479322131	IC501/IC502	KIA4559P/KIA75559P, OP Amp	2168206104
C526/C527	Ceramic Tubular 0.1 uF 50 V Z	3519104935	IC503	LV-1000NA	2168017142
C528	Electrolytic SA 1 uF 50 V M	3479210971	IC504	DRAM, uPD61256-08	2138430001
C529	Mylar 0.22 uF 63 V K	3679224297	IC505	MC14094BCP	2138009115
C530	Mylar 0.068 uF 100 V J	3679683120	IC506	LC7822	2168017139
C531	Mylar 0.0039 uF 100 V J	3679392120	IC507	TC9176P	2138007124
C532	Mylar 0.0047 uF 100 V J	3679472120	IC508/IC509	KIA4559P/KIA75559P, OP Amp	2168206104
C533	Mylar 0.033 uF 100 V J	3679333120	<b>TRANSISTORS</b>		
C534	Electrolytic SA 10 uF 50 V M	3479210071	Q501	BKTA1266Y/KTA1015Y, PNP	2208206105
C535	Electrolytic SA 1 uF 50 V M	3479210971	Q502	DTC114YS	2208622106
C536/C537	Electrolytic SA 10 uF 50 V M	3479210071	Q503	DTA114YS, PNP	2208222105
C538	Ceramic Tubular 470 pF 50 V J	3519471935	Q504/Q505	DTC114YS	2208622106
C539L/R	Electrolytic SA 10 uF 50 V M	3479210071			

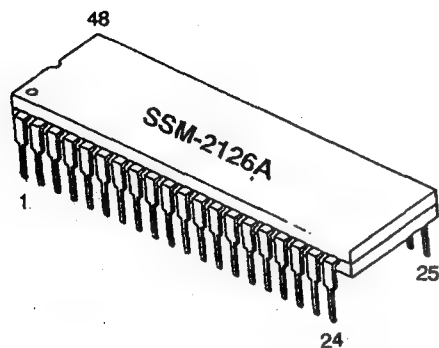
Ref. No.	Description	Mfr. Part No.	Ref. No.	Description	Mfr. Part No.
Q506	KTC3198Y/KTC1815Y, NPN	2208606104	R554L/R	Carbon Film 1 Mohm 1/5 W J	3069105970
Q507	DTA114YS, PNP	2208222105	R555L/R	Carbon Film 4.7 kohm 1/5 W J	3069472970
Q508L/R	KTD1302, NPN	2208606112	R556L/R	Carbon Film 1.5 kohm 1/5 W J	3069152970
Q509	KTC3198Y/KTC1815Y, NPN	2208606104	R557L/R	Carbon Film 2 kohm 1/5 W J	3069202970
Q510	DTA114YS, PNP	2208222105	R558/R559	Carbon Film 100 ohm 1/5 W J	3069101970
Q511	KTD1302, NPN	2208606112	R560L/R	Carbon Film 680 ohm 1/5 W J	3069681970
Q512	KTC3198Y/KTC1815Y, NPN	2208606104	R561L/R	Carbon Film 1 Mohm 1/5 W J	3069105970
Q513	DTA114YS, PNP	2208222105	R562L/R	Carbon Film 4.7 kohm 1/5 W J	3069472970
Q514L/R	KTD1302, NPN	2208606112	R563L/R	Carbon Film 1.5 kohm 1/5 W J	3069152970
Q515	KTC3198Y/KTC1815Y, NPN	2208606104	R564L/R	Carbon Film 2 kohm 1/5 W J	3069202970
<b>RESISTORS</b>			R565/R566	Carbon Film 100 ohm 1/5 W J	3069101970
R501/R502	Carbon Film 100 ohm 1/5 W J	3069101970	R567	Carbon Film 2.2 kohm 1/5 W J	3069222970
R503	Carbon Film 10 kohm 1/5 W J	3069103970	R568L/R	Carbon Film 2.2 kohm 1/5 W J	3069222970
R504L	Carbon Film 10 kohm 1/5 W J	3069103970	R569-R571	Carbon Film 2.2 kohm 1/5 W J	3069222970
R504R	Carbon Film 22 kohm 1/5 W J	3069223970	R572L/R	Carbon Film 2.2 kohm 1/5 W J	3069222970
R505L/R	Carbon Film 22 kohm 1/5 W J	3069223970	R573	Carbon Film 820 ohm 1/5 W J	3069821970
R506	Carbon Film 22 kohm 1/5 W J	3069223970	R574	Carbon Film 1 kohm 1/5 W J	3069102970
R507	Carbon Film 1.5 kohm 1/5 W J	3069152970	R575L/R	Carbon Film 1 kohm 1/5 W J	3069102970
R508	Carbon Film 750 ohm 1/5 W J	3069751970	R576/R577	Carbon Film 220 kohm 1/5 W J	3069224970
R509	Carbon Film 1.8 kohm 1/5 W J	3069182970	<b>SEMI FIXED RESISTOR</b>		
R510	Carbon Film 3.9 kohm 1/5 W J	3069392970	VR501	Semi, 10 k (B)	3248010343
R511	Carbon Film 4.7 kohm 1/5 W J	3069472970	<b>RESONATOR</b>		
R515	Carbon Film 3.3 kohm 1/5 W J	3069332970	X-TAL501	Resonator, CST8.00MTW	3938131590
R516/R517	Carbon Film 100 ohm 1/5 W J	3069101970	<b>MISCELLANEOUS</b>		
R519	Carbon Film 10 kohm 1/5 W J	3069103970	W501	CTB 0135 LV DIAMOND DL B#16	4359855035
R520	Carbon Film 100 kohm 1/5 W J	3069104970	<b>END OF P.C.B DOLBY</b>		
R521	Carbon Film 3.9 kohm 1/5 W J	3069392970	<b>P3-2 Ass'y P.C.B HEADPHONE 054002007594</b>		
R522L/R	Carbon Film 6.8 kohm 1/5 W J	3069682970	<b>RESISTORS</b>		
R523L/R	Carbon Film 100 kohm 1/5 W J	3069104970	R295L/R	Metal Film 470 ohm 2 W J	3029471570
R524	Metal Film 56 ohm 1 W J	3029560470	C291L/R	Ceramic Tubular 560 pF 50 V J	3519561935
R525	Carbon Film 56 ohm 1/5 W J	3069560970	<b>CONNECTOR</b>		
R526	Carbon Film 1 Mohm 1/5 W J	3069105970	CN291	Lead Ass'y, 12P, 350 mm	435112353401
R527	Carbon Film 47 kohm 1/5 W J	3069473970	<b>MISCELLANEOUS</b>		
R528	Carbon Film 3.3 kohm 1/5 W J	3069332970	24(SW291)	Switch Push	4628043810
R529	Carbon Film 15 kohm 1/5 W J	3069153970	25(SW292)	Switch Push	4628049210
R530	Carbon Film 8.2 kohm 1/5 W J	3069822970	26	Jack, Phone	4438005010
R531	Carbon Film 100 kohm 1/5 W J	3069104970	<b>END OF P.C.B HEADPHONE</b>		
R532	Carbon Film 39 kohm 1/5 W J	3069393970	<b>P3-3 Ass'y P.C.B VOLUME LED 054002007596</b>		
R533/R534	Carbon Film 8.2 kohm 1/5 W J	3069822970	CNT581	Lead Ass'y, 2P, 180 mm, 2.5 mm Pitch	4358102184
R535	Carbon Film 47 kohm 1/5 W J	3069473970	LED581	LED, SLC-22VRS, Green	2308220324
R536	Carbon Film 5.6 kohm 1/5 W J	3069562970	<b>END OF P.C.B VOLUME LED</b>		
R537	Carbon Film 1 kohm 1/5 W J	3069102970			
R538	Carbon Film 10 kohm 1/5 W J	3069103970			
R539-R541	Carbon Film 1 kohm 1/5 W J	3069102970			
R542	Carbon Film 220 ohm 1/5 W J	3069221970			
R543	Carbon Film 100 kohm 1/5 W J	3069104970			
R544	Carbon Film 220 ohm 1/5 W J	3069221970			
R545-R547	Carbon Film 1 kohm 1/5 W J	3069102970			
R548/R549	Carbon Film 220 ohm 1/5 W J	3069221970			
R550-R552	Carbon Film 1 kohm 1/5 W J	3069102970			
R553L/R	Carbon Film 680 ohm 1/5 W J	3069681970			

Ref. No.	Description	Mr. Part No.				Ref. No.	Description	Mr. Part No.			
The following parts are only for European version.											
P1	Ass'y P.C.B MAIN				054002007917	C432L/R	Ceramic Tubular	100 pF	50 V	J	3519101935
C101L/R	Ceramic Tubular	100 pF	50 V	J	3519101935	C433	Ceramic Tubular	100 pF	50 V	J	3519101935
C104L/R	Ceramic Tubular	2200 pF	50 V	J	3519222935	P3	Ass'y P.C.B FRONT				054002007921
C120L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C121L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C122L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C123L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C124L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C125L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C126L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C127L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C128L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C129L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C130L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C131L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C132L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C133L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C134L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C135L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C136L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C137L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C138L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C139L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C181L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C182L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C260L/R	Ceramic Tubular	2200 pF	50 V	J	3519222935						
C261L/R	Ceramic Tubular	2200 pF	50 V	J	3519222935						
C262L/R	Ceramic Tubular	2200 pF	50 V	J	3519222935						
L101L	Coil, Inductor, 50 uH				2648601470						
L101R	Coil, Inductor, 50 uH				2648601470						
P2	Ass'y P.C.B TUNER				05400200792						
C259	Ceramic Tubular	2200 pF	50 V	J	3519222935						
C260	Ceramic Tubular	3300 pF	50 V	J	3519332935						
C616-C617	Ceramic Tubular	3300 pF	50 V	J	3519332935						
C618	Ceramic Tubular	2200 pF	50 V	J	3519222935						
C960L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C961L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
C962C	Ceramic Tubular	100 pF	50 V	J	3519101935						
C963L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						
P2-1	Ass'y P.C.B POWER SUPPLY				054002007926						
F701	Fuse, TL 4A 250V				5508302534						
F702	Fuse, TL 4A 250V				5508302534						
F703	Fuse, TL 4A 250V				5508302534						
F704	Fuse, TL 500mA 250V				5508301634						
F705	Fuse, TL 2.5A 250V				5508302534						
62	Outlet, 1P				4448103610						
	Standby Transformer, 230 V 50 Hz				2828000077						
P2-3	Ass'y P.C.B TONE				054002007928						
C431L/R	Ceramic Tubular	100 pF	50 V	J	3519101935						

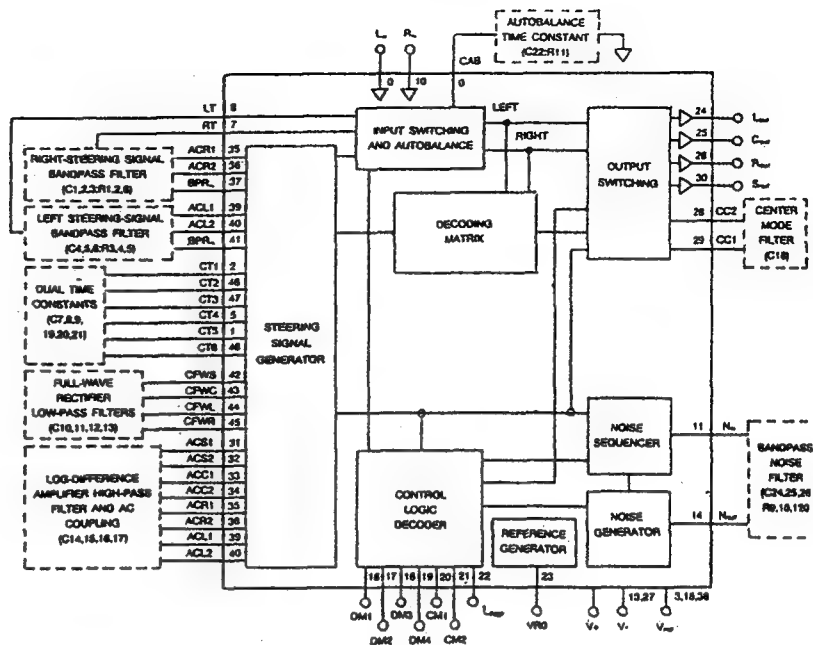
# SEMICONDUCTOR LEAD IDENTIFICATION & INTERNAL DIAGRAM

SSM-2126A : IC201

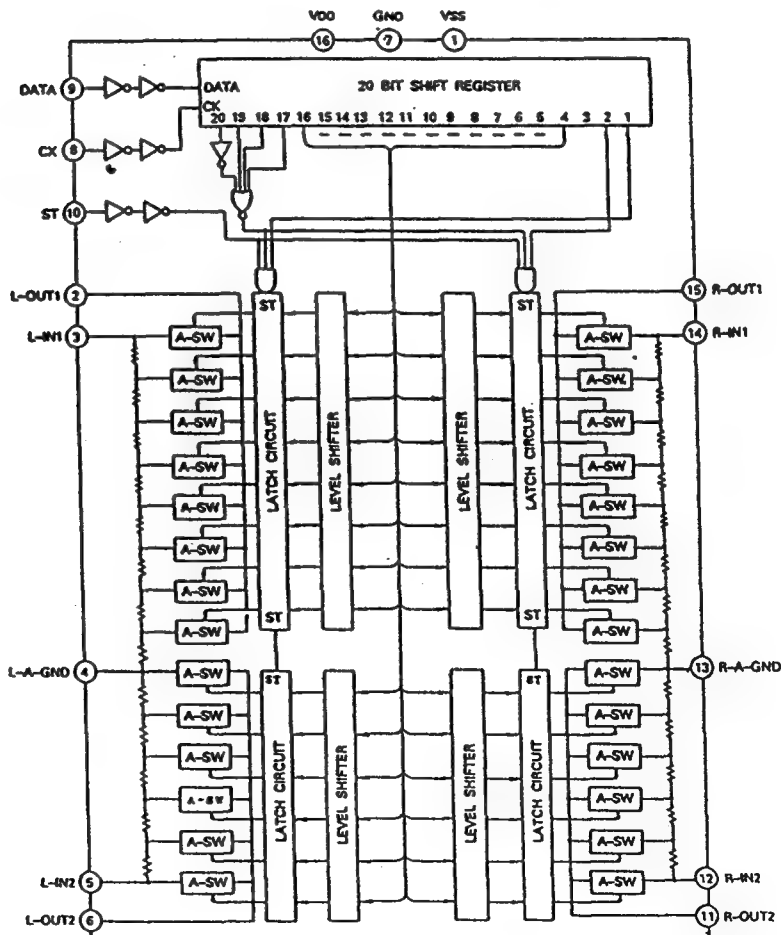
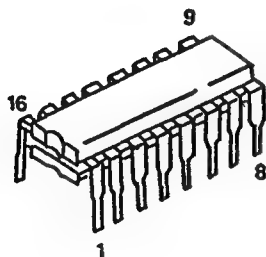
Package Outline



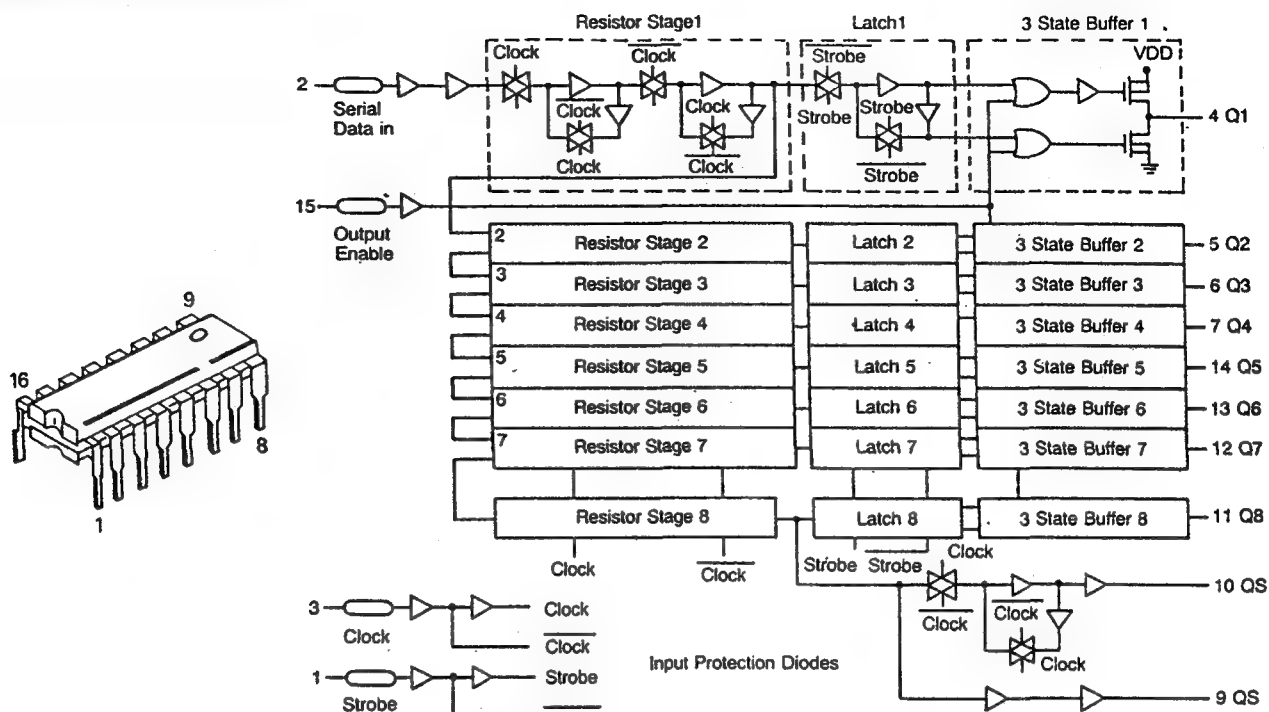
Block Diagram



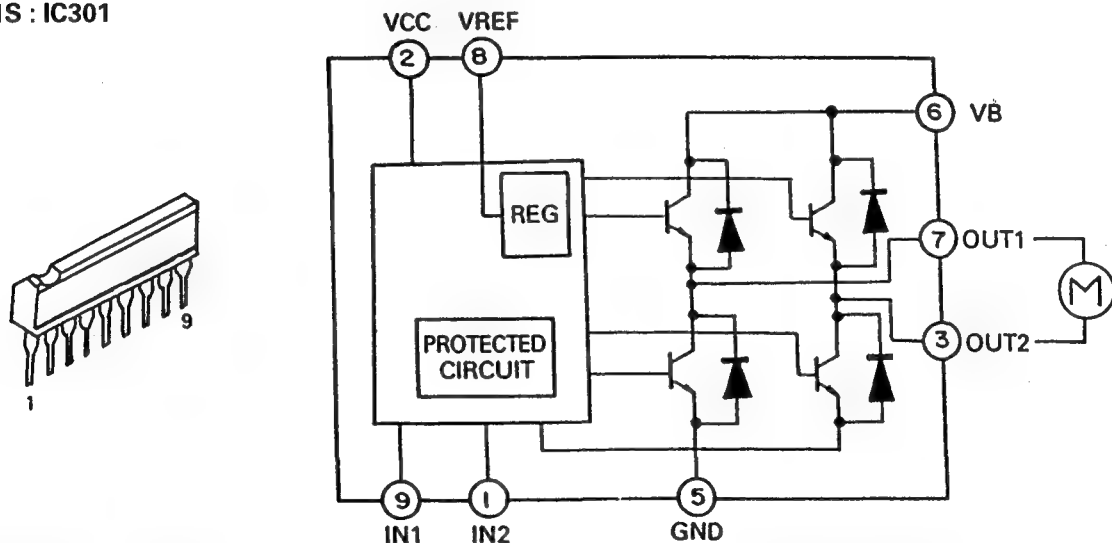
TC9176 : IC507



MC14094 : IC105, IC202, IC505

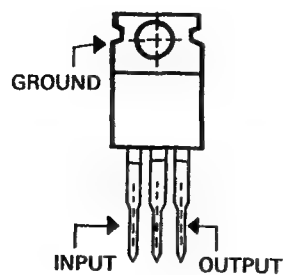


TA7291S : IC301

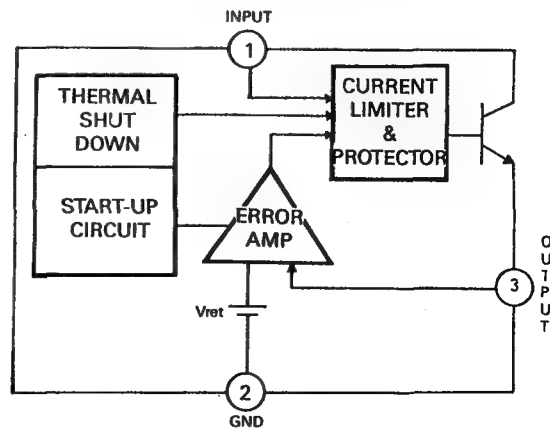


GD78XX : IC241, IC242, IC701

Front View

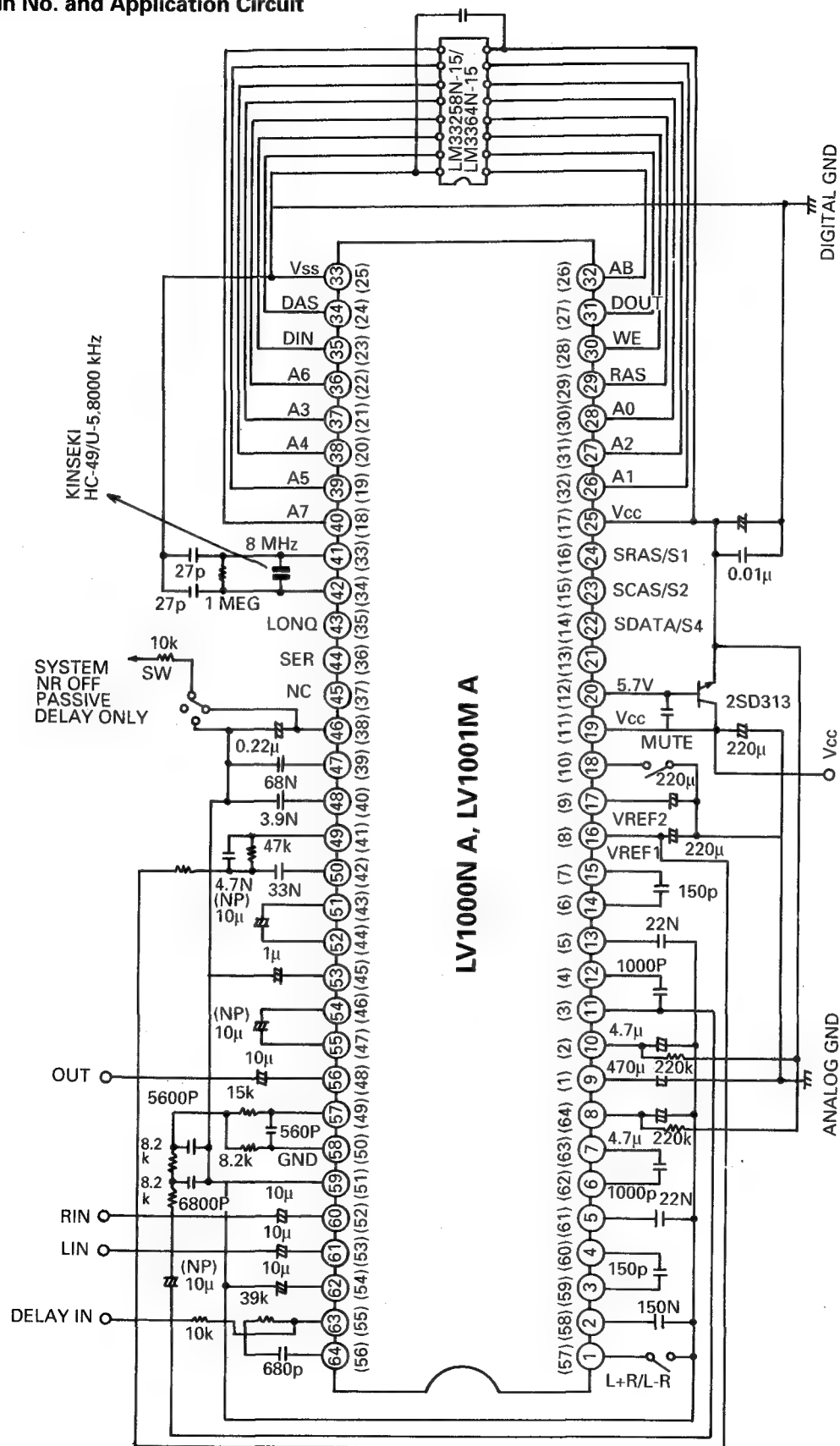


Block Diagram



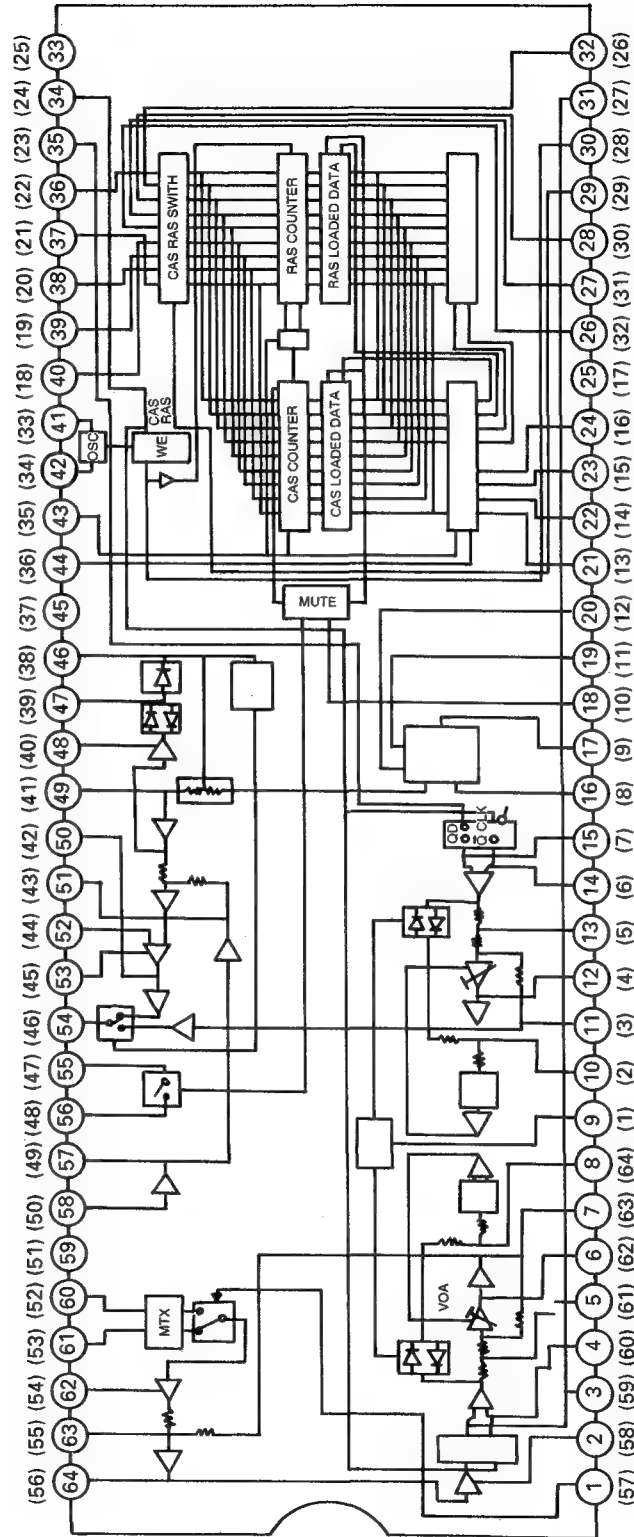


### 1. Pin No. and Application Circuit



( ) : Pin No. for LV1001MA

## 2. Block Diagram

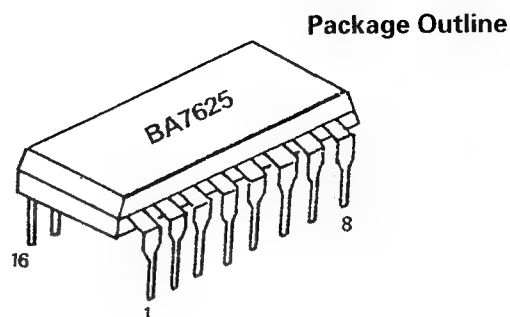
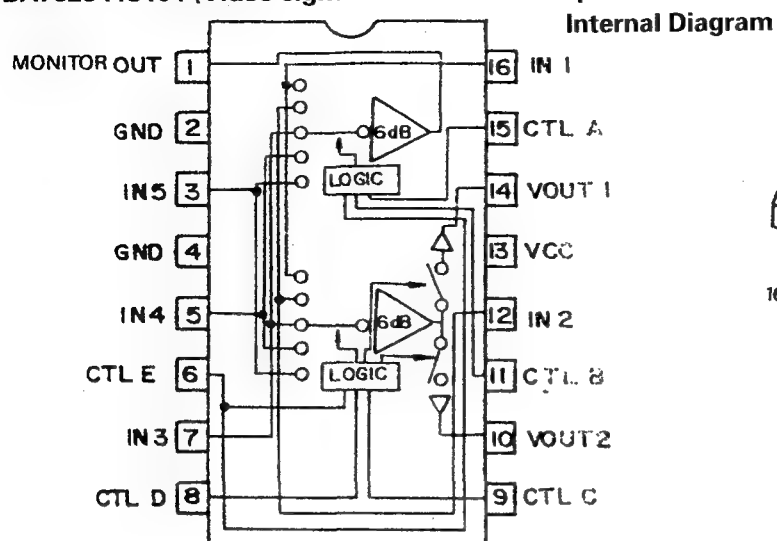


( ) : Pin No. for LV1001MA

## 3. PIN Functions

Pin No.	Explanations
1(57)	Delay input signal mode select switch (L+R/L-R)
2(58)	Filter for supply voltage on comparator
3,15(7, 59)	Input filter for rectifier
4,14(6, 60)	Input filter for rectifier
5,13(5, 61)	Capacitor for pre-emphasis
6,12(4, 62)	Capacitor for sliding band filter
7(63)	Capacitor for sliding band filter and local decoder output
8,10(2, 64)	Capacitor for smoothing of rectifier output
9(1)	De-couple capacitor for threshold voltage
11(3)	Capacitor for sliding band filter and Delayed output
16(8)	Reference voltage
17(9)	Reference voltage
18(10)	Mute control
19(11)	V <sub>CC</sub>
20(12)	Output for V <sub>DD</sub>
21(13)	Clock input for serial input, data input for parallel input mode
22(14)	Data input for serial input, data input for parallel input mode
23(15)	Column address selection for serial input, data input for parallel input mode
24(16)	Row address selection for serial input, data input for parallel input mode
25(17)	V <sub>DD</sub>
26 to 40	Connection to memory device
(18 to 32)	Connection to memory device
33(25)	V <sub>SS</sub>
41(33)	X'tal resonator for oscillator
42(34)	X'tal resonator for oscillator
43(35)	Long or Short mode selection
44(36)	Serial or Parallel mode selection
45(37)	For test mode
46(38)	Smoothing for NR rectifier
47(39)	Smoothing for NR rectifier
48(40)	Capacitor for weighting on side chain path
49(41)	Input for variable resistor
50(42)	NR output
51(43)	7kHz low pass filter output
52(44)	Input for NR
53(45)	Capacitor for de-couple on NR
54(46)	Delay output or NR output
55(47)	Input for mute circuit
56(48)	Output for mute circuit
57(49)	Output for 7 kHz low pass filter
58(50)	Input for 7 kHz low pass filter
59(51)	GND
60(52)	Input for right channel
61(53)	Input for left channel
62(54)	Capacitor for de-couple on Fixed matrix output
63(55)	Noise shaping and delay input
64(56)	Noise shaping output

**BA7625 : IC104 (Video signal switch for AV amplifier)**

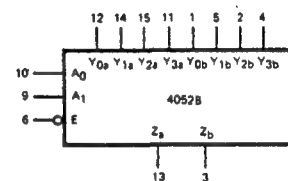


**GD 4052B : IC103 (Dual 4 -Channel analog multiplexer/demultiplexer)**

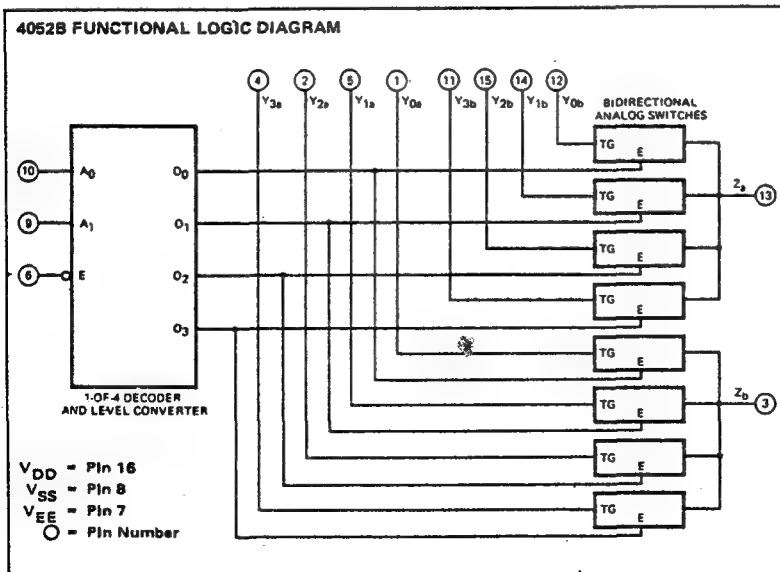
**TRUTH TABLE**

INPUTS			CHANNELS			
E	A <sub>1</sub>	A <sub>0</sub>	Y <sub>0</sub> -Z	Y <sub>1</sub> -Z	Y <sub>2</sub> -Z	Y <sub>3</sub> -Z
L	L	L	ON	OFF	OFF	OFF
L	L	H	OFF	ON	OFF	OFF
L	H	L	OFF	OFF	ON	OFF
L	H	H	OFF	OFF	OFF	ON
H	X	X	OFF	OFF	OFF	OFF

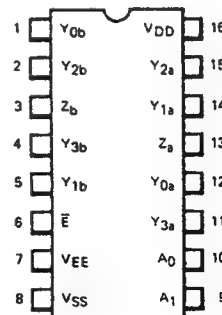
L=LOW Level H=HIGH Level, X=Don't care



V<sub>DD</sub> = PIN 16  
V<sub>SS</sub> = PIN 8  
V<sub>EE</sub> = PIN 7

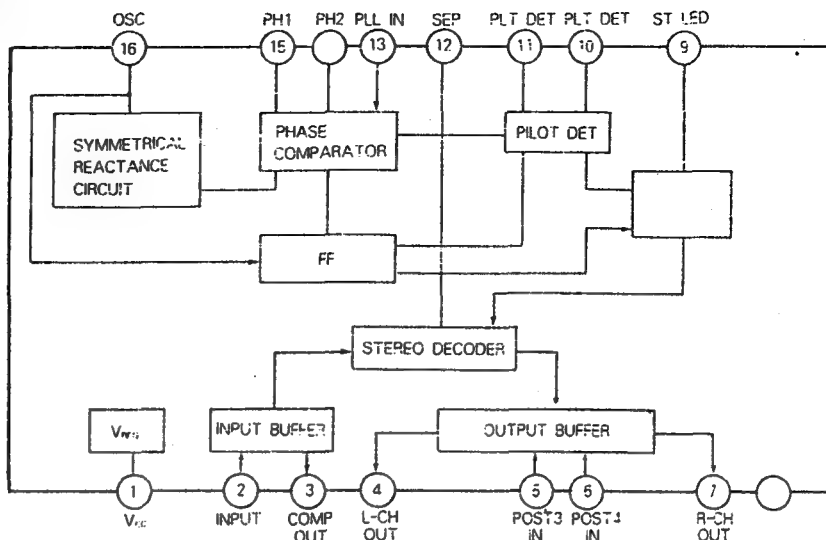
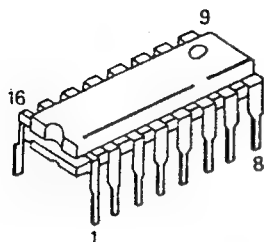


**CONNECTION DIAGRAM  
DIP (TOP VIEW)**

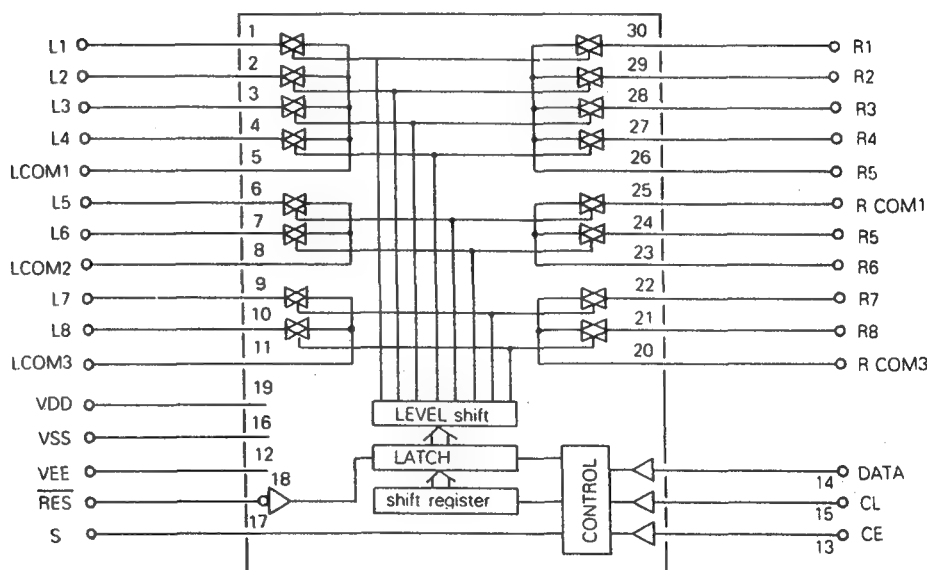
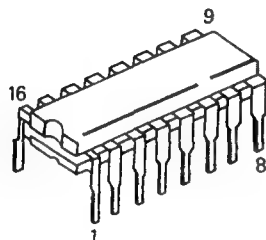


**NOTE:**  
The SO Package has the same pinouts (Connection Diagram) as the Dual in-line Package.

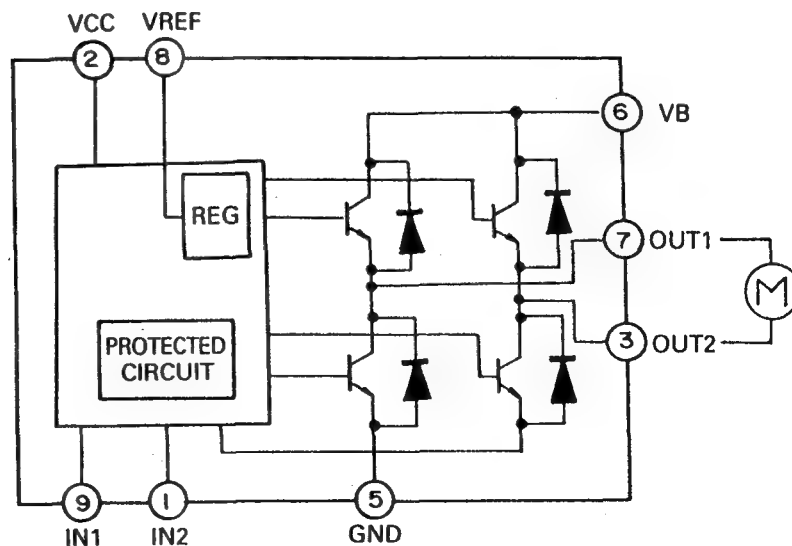
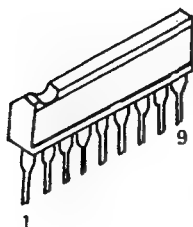
KA2265 : IC903 (AVR25 ONLY)



LC7821 : IC101, IC102



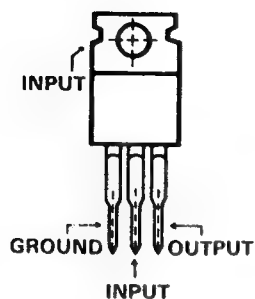
TA7291S : IC109, IC506



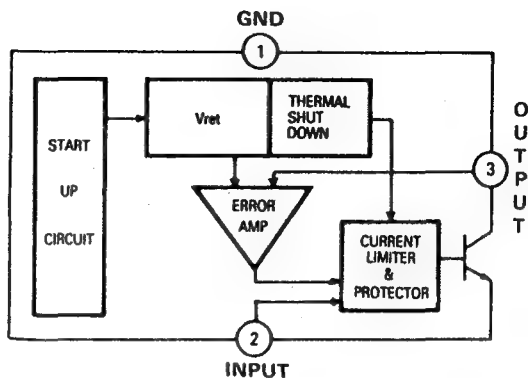


GD79XX : IC243

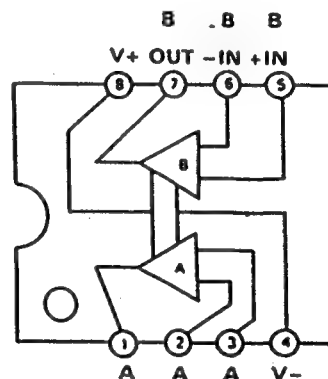
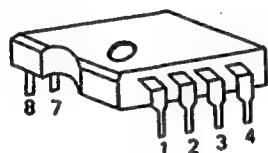
Front View



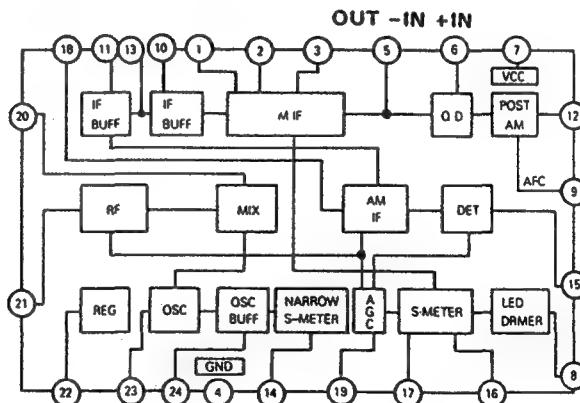
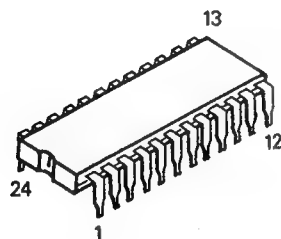
Block Diagram



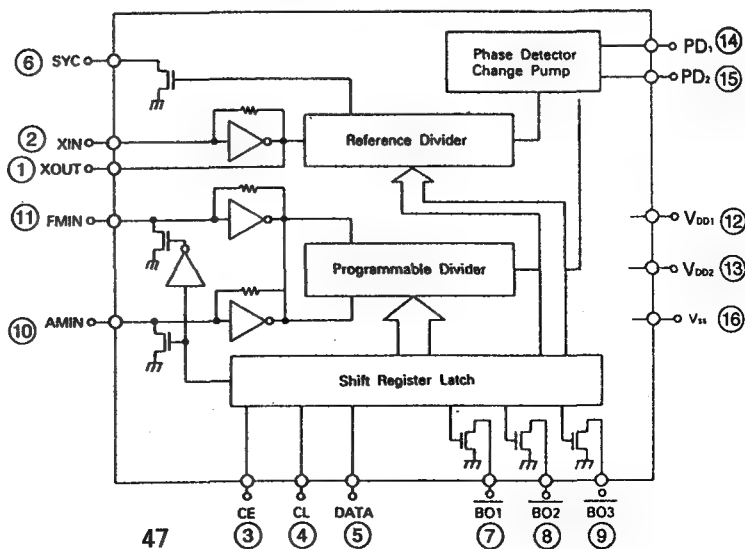
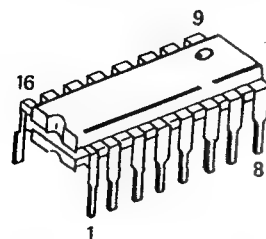
KIA4559P/KIA7559P : IC106, 107, 108, IC401, IC402  
IC501, IC502, IC508, IC509



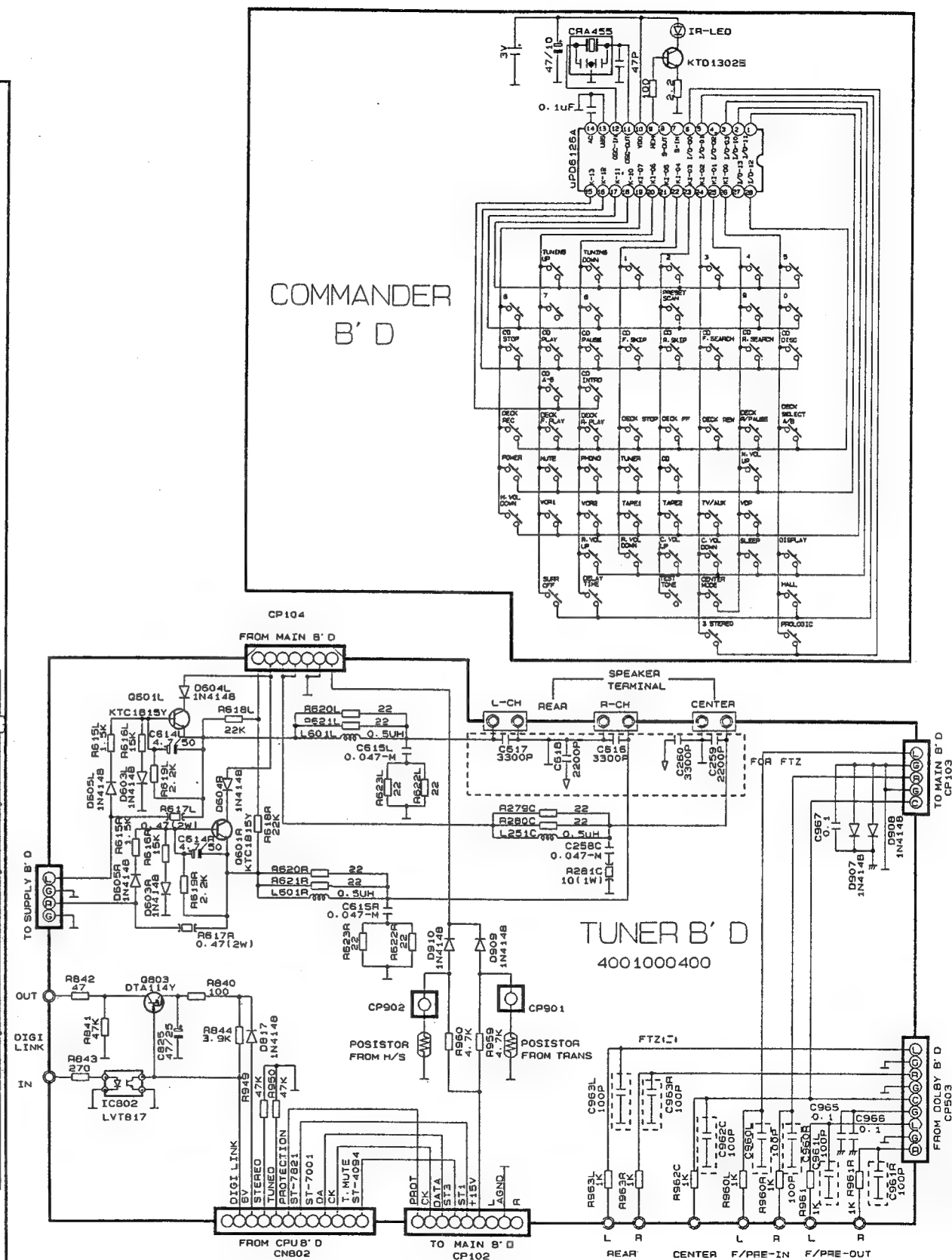
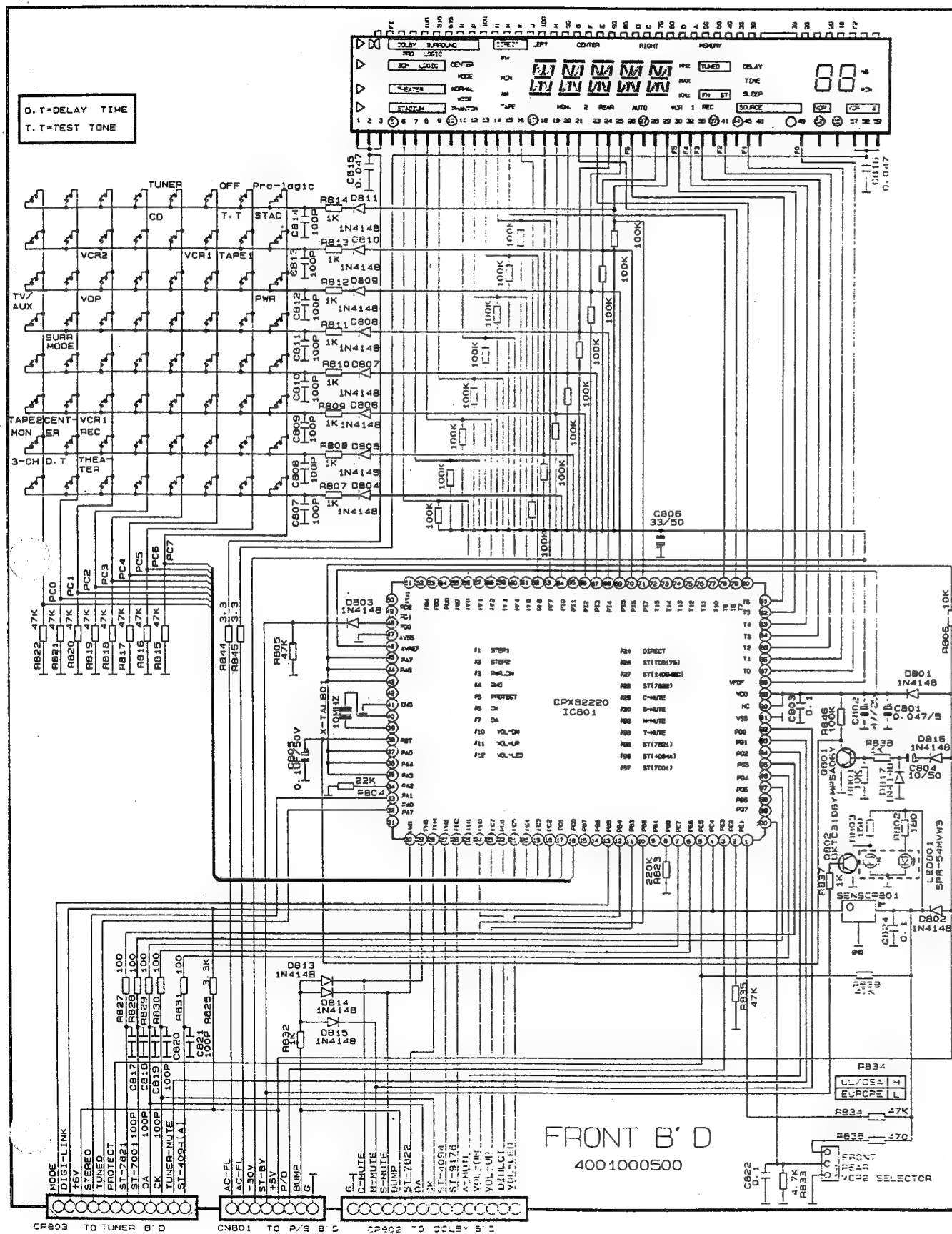
LA1266 : IC902 (AVR25 ONLY)



LM7001 : IC901 (AVR25 ONLY)



### SCHEMATIC DIAGRAM I




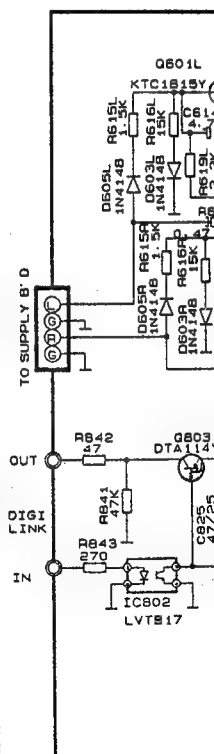
**NOTES**

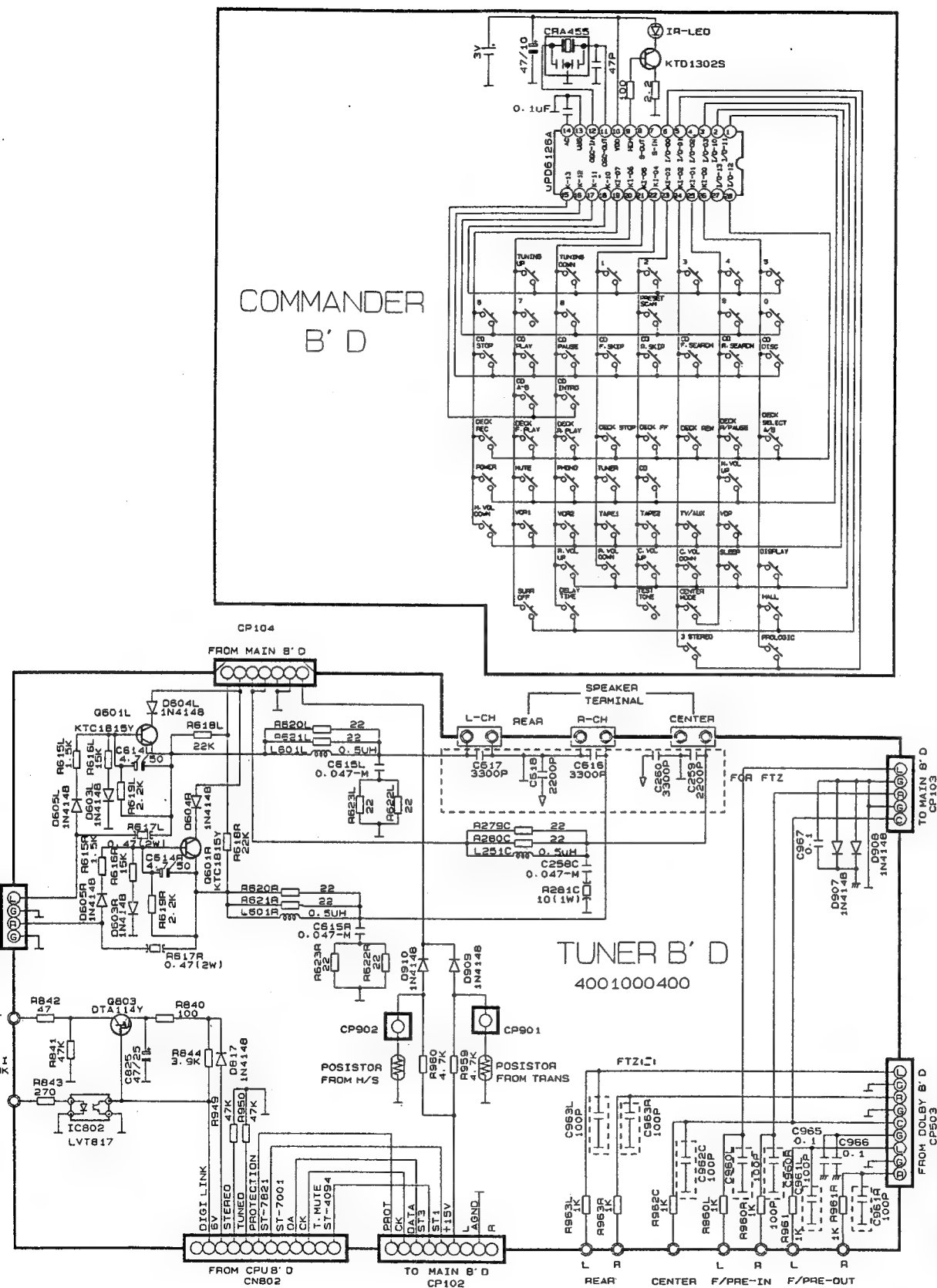
1. Resistor values are indicated in ohms unless otherwise specified  
[K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified.  
[p=micro-microfarads]

**CAUTION**

Safety precaution to be followed during servicing

- 1) Since those parts marked with  are critical parts for safety, use only the one described in the parts list
- 2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.





**NOTES**

1. Resistor values are indicated in ohms unless otherwise specified [K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified. [p=micro-microfarads]

**CAUTION**

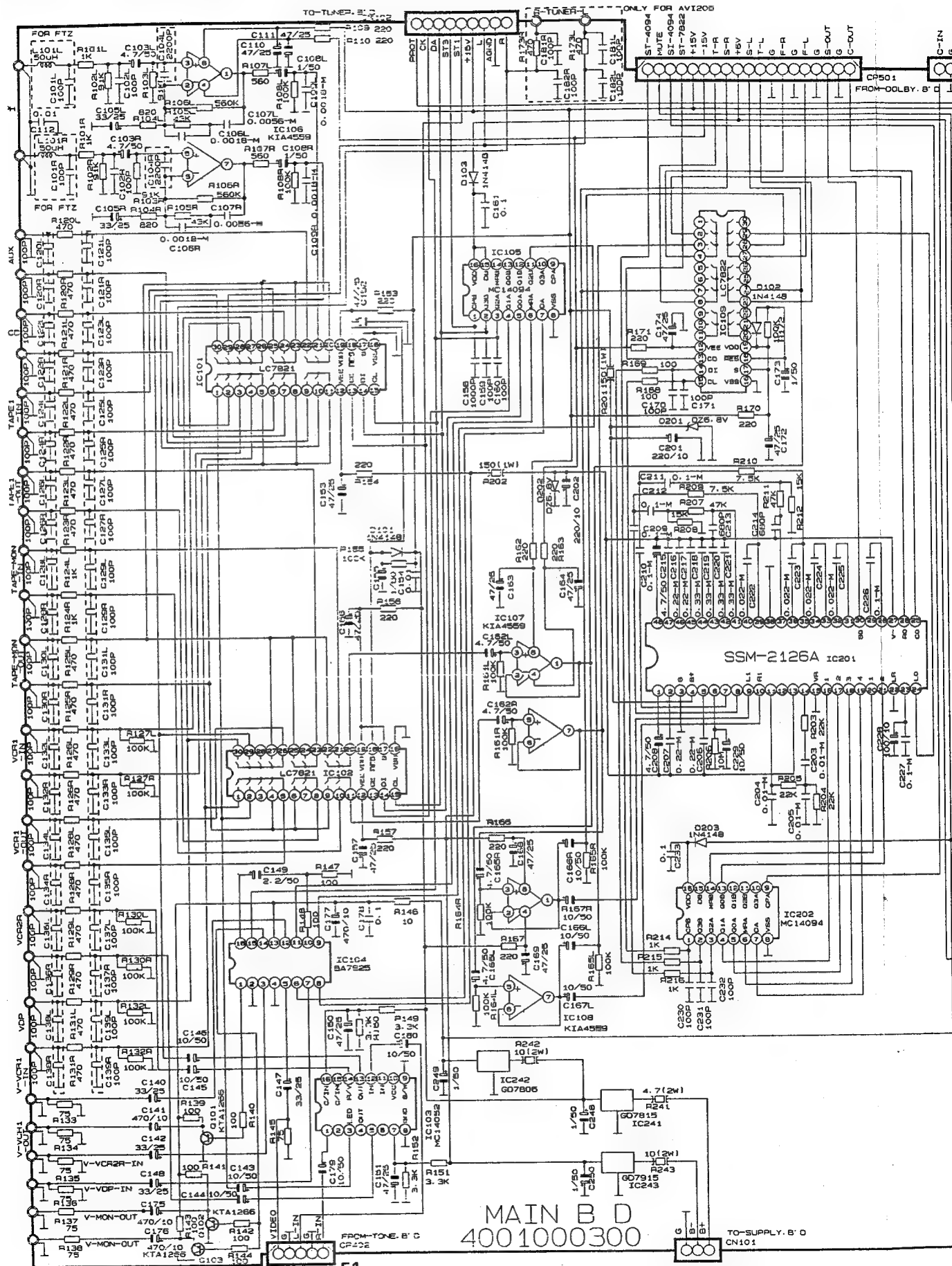
Safety precaution to be followed during servicing

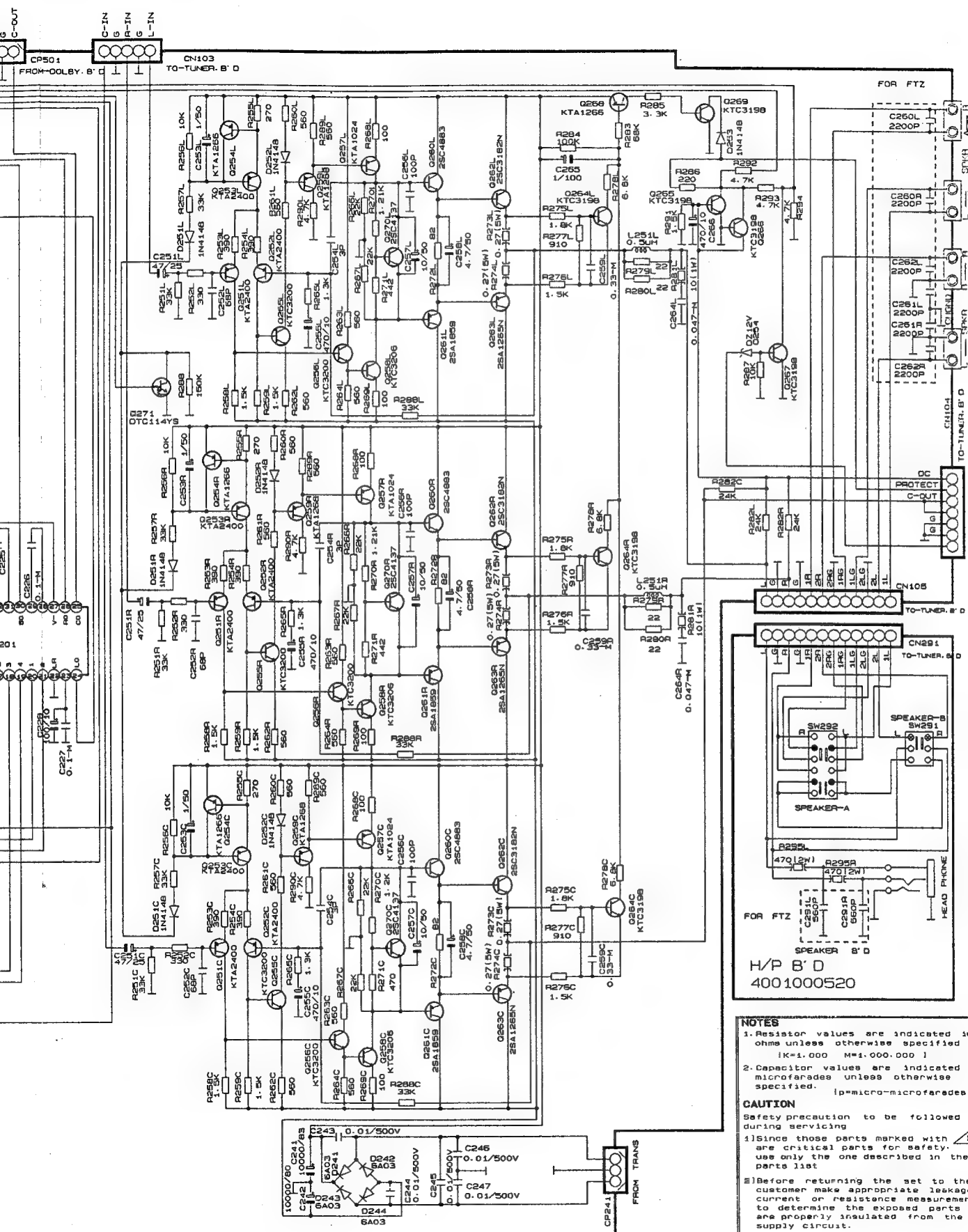
1. Since those parts marked with a triangle are critical parts for safety, use only the one described in the parts list
2. Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.





# SCHEMATIC DIAGRAM II





**NOTES**

1. Resistor values are indicated in ohms unless otherwise specified.  
[K=1,000 M=1,000,000]
2. Capacitor values are indicated in microfarads unless otherwise specified.  
[p=micro-microfarads]

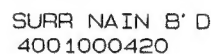
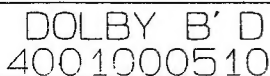
**CAUTION**

Safety precaution to be followed during servicing

- 1) Since those parts marked with a triangle are critical parts for safety, use only the one described in the parts list.
- 2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.






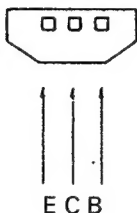
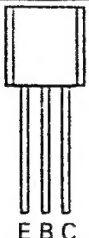


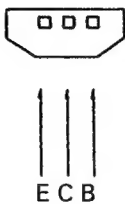
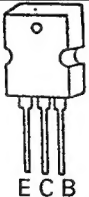



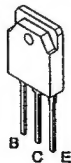








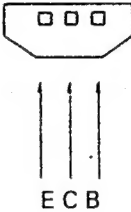



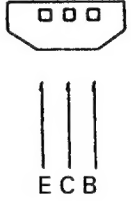




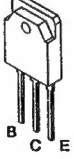

NO	VERSION	USA/CANADA	EUROPE
F701	F702	S84A/125V	T4A/250V
F703		S86A/125V	T4A/250V
F704		N8315mA/125V	T500mA/250V
F705		-	T2.5A/250V
F708		3.3M11/2M	-



TRANSISTORS LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
TDA 1302 KTC3200/KTC2240 KTC3198/KTC1815 KTC1923/KTC3194 KTA2400 KTA1268/KTA970 KTA1266/KTA1015	 E C B	 E C B
DTC114YS DTA114YS	 E C B	 E C B
MPSA06	 E B C	 E C B
KTA1024 KTC3206	 E C B	 E C B
2SC4137	 E C B	 E C B
2SK168A	 D G S	 D G S
2SA1265N-O 2SA1859A-Y 2SC4883A-Y 2SC3182N-O	 B C E	 B C E
TERMINAL NAME		
B→BASE C→COLLECTOR E→EMITTER		

# TRANSISTORS LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
TDA 1302 KTC3200/KTC2240 KTC3198/KTC1815 KTC1923/KTC3194 KTA2400 KTA1268/KTA970 KTA1266/KTA1015		
DTC114YS DTA114YS		
MPSA06		
KTA1024 KTC3206		
2SC4137		
2SK168A		
2SA1265N-O 2SA1859A-Y 2SC4883A-Y 2SC3182N-O		
TERMINAL NAME		
B→BASE C→COLLECTOR E→EMITTER		